Pollutant or pollutant property	Maximum for any 1 day	Monthly average shall not exceed
	Milligrams pe	er liter (mg/l)
pH	(1) 0.55 0.10 1.64 35.0 60.0	(1) 0.26 0.04 0.67 18.0 31.0

¹ Within the range of 6.0 to 9.0.

§ 469.43 Pretreatment standards for new sources (PSNS).

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources (PSNS):

Pollutant property	For any 1 day	Monthly average shall not exceed
	Milligrams pe	er liter (mg/l)
Cadmium	0.55 0.10 1.64 35.0	0.26 0.04 0.67 18.0

PART 471—NONFERROUS METALS FORMING AND METAL POWDERS POINT SOURCE CATEGORY

GENERAL PROVISIONS

Sec.

471.01 Applicability.

471.02 General definitions.

471.03 Compliance date for PSES.

Subpart A—Lead-Tin-Bismuth Forming Subcategory

- 471.10 Applicability; description of the leadtin-bismuth forming subcategory.
- 471.11 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT)
- 471.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT)
- 471.13 New source performance standards (NSPS).
- 471.14 Pretreatment standards for existing sources (PSES).

- 471.15 Pretreatment standards for new sources (PSNS).
- 471.16 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart B—Magnesium Forming Subcategory

- 471.20 Applicability; description of the magnesium forming subcategory.
- 471.21 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 471.22 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 471.23 New source performance standards (NSPS).
- 471.24 Pretreatment standards for existing sources (PSES).
- 471.25 Pretreatment standards for new sources (PSNS).
- 471.26 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart C—Nickel-Cobalt Forming Subcategory

- 471.30 Applicability; description of the nick-el-cobalt forming subcategory.
- 471.31 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 471.32 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 471.33 New source performance standards (NSPS).
- 471.34 Pretreatment standards for existing sources (PSES).
- 471.35 Pretreatment standards for new sources (PSNS).
- 471.36 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart D—Precious Metals Forming Subcategory

471.40 Applicability; description of the precious metals forming subcategory.

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- 471.41 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT)
- 471.42 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 471.43 New source performance standards (NSPS).
- 471.44 Pretreatment standards for existing sources (PSES).
- 471.45 Pretreatment standards for new sources (PSNS).
- 471.46 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart E—Refractory Metals Forming Subcategory

- 471.50 Applicability; description of the refractory metals forming subcategory.
- 471.51 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 471.52 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 471.53 New source performance standards (NSPS).
- 471.54 Pretreatment standards for existing sources (PSES).
- 471.55 Pretreatment standards for new sources (PSNS).
- 471.56 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart F—Titanium Forming Subcategory

- 471.60 Applicability; description of the titanium forming subcategory.
- 471.61 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 471.62 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 471.63 New source performance standards (NSPS).
- 471.64 Pretreatment standards for existing sources (PSES).

- 471.65 Pretreatment standards for new sources (PSNS).
- 471.66 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart G-Uranium Forming Subcategory

- 471.70 Applicability; description of the uranium forming subcategory.
- 471.71 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 471.72 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 471.73 New source performance standards (NSPS).
- 471.74 Pretreatment standards for existing sources (PSES). [Reserved]
- 471.75 Pretreatment standards for new sources (PSNS).
- 471.76 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart H—Zinc Forming Subcategory

- 471.80 Applicability; description of the zinc forming subcategory.
- 471.81 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 471.82 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 471.83 New source performance standards (NSPS).
- 471.84 Pretreatment standards for existing sources (PSES). [Reserved]
- 471.85 Pretreatment standards for new sources (PSNS).
- 471.86 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart I—Zirconium-Hafnium Forming Subcategory

471.90 Applicability; description of the zirconium-hafnium forming subcategory.

- 471.91 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (RPT)
- 471.92 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 471.93 New source performance standards (NSPS).
- 471.94 Pretreatment standards for existing sources (PSES).
- 471.95 Pretreatment standards for new sources (PSNS).
- 471.96 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart J—Metal Powders Subcategory

- 471.100 Applicability; description of the metal powders subcategory.
- 471.101 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 471.102 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 471.103 New source performance standards (NSPS).
- 471.104 Pretreatment standards for existing sources (PSES).
- 471.105 Pretreatment standards for new sources (PSNS).
- 471.106 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

AUTHORITY: Secs. 301, 304(b), (c), (e), and (g), 306(b) and (c), 307, 308, and 501 of the Clean Water Act (the Federal Water Pollution Control Act Amendments of 1972 as amended by the Clean Water Act of 1977) (the "Act"); 33 U.S.C. 1311, 1314(b), (c), (e), and (g), 1316(b) and (c), and 1361; 86 Stat. 816, Pub. L. 92–500; 91 Stat. 1567, Pub. L. 95–217.

Source: $50 \ FR \ 34270$, Aug. 23, 1985, unless otherwise noted.

GENERAL PROVISIONS

§471.01 Applicability.

(a) This part applies to discharges of pollutants to waters of the United States and introduction of pollutants into a publicly owned treatment works

from the forming of nonferrous metals (including nonferrous metal alloys), except beryllium, copper, and aluminum and their alloys. Aluminum alloys are defined as any alloy in which aluminum is the major constituent in percent by weight. Copper alloys are defined as any alloy in which copper is the major constituent in percent by weight except when copper is alloyed with precious metals. Any copper-precious metal alloy containing 30 percent or greater precious metal is considered a precious metal alloy for the purposes of this part. Beryllium alloys are any alloy in which beryllium is present at 0.1 percent or greater. This part applies

- (1) Forming operations, including rolling (both hot and cold), extruding, forging, drawing, swaging, cladding, and tube reducing, and
- (2) Ancillary operations performed as an integral part of the forming of these metals, including casting for subsequent forming, heat treatment, surface treatment, alkaline cleaning, solvent degreasing, product testing, surface coating, sawing, grinding, tumbling, burnishing, and wet air pollution control.
- (b) This part also applies to discharges of pollutants to waters of the United States and introduction of pollutants into a publicly owned treatment works from mechanical metal powder production operations, forming of parts from metal powders, and associated ancillary operations (listed in paragraph (a)(2) of this section) of:
- (1) Iron, copper, and aluminum, and their alloys; and
- (2) The nonferrous metals and their alloys described in paragraph (a) of this section. This part does not regulate the production of metal powders by chemical means such as precipitation. The production of metal powder as the final step in refining metal is regulated under the Nonferrous Metals Manufacturing Point Source Category regulation, 40 CFR part 421.
- (c) Surface treatment includes any chemical or electrochemical treatment applied to the surface of the metal. For the purposes of this regulation, surface treatment of metals is considered to be an integral part of the forming of metals whenever it is performed at the

same plant site at which the metals are formed. Such surface treatment operations are not regulated under the Electroplating or Metal Finishing Point Source Category regulations, 40 CFR part 413 or 433, respectively.

- (d) Casting is covered by this part when it is performed as an integral part of the metal forming process and takes place at the same plant site at which metals are formed. Such casting will not be regulated under the provisions of Metal Molding and Casting Point Source Category regulations, 40 CFR part 464.
- (e) This part does not apply to the forming of the metals cadmium, chromium, gallium, germanium, indium, lithium, manganese, neodymium, or praseodymium.

§ 471.02 General definitions.

In addition to the definitions set forth in 40 CFR part 401, the following definitions apply to this part:

- (a) "Nonferrous metal" is any pure metal other than iron or any metal alloy for which a metal other than iron is its major constituent in percent by weight.
- (b) "Forming" is a set of manufacturing operations in which metals and alloys are made into semifinished products by hot or cold working.
- (c) "Alkaline cleaning" uses a solution (bath), usually detergent, to remove lard, oil, and other such compounds from a metal surface. Alkaline cleaning is usually followed by a water rinse. The rinse may consist of single or multiple stage rinsing. For the purposes of this part, an alkaline cleaning operation is defined as a bath followed by a rinse, regardless of the number of rinse stages. Each alkaline cleaning bath and rinse combination is entitled to a discharge allowance.
- (d) "Atomization" is the process in which a stream of water or gas impinges upon a molten metal stream, breaking it into droplets which solidify as powder particles.
- (e) "Burnishing" is a surface finishing process in which minute surface irregularities are displaced rather than removed.
- (f) "Casting" is pouring molten metal into a mold to produce an object of desired shape.

- (g) "Cladding" or "metal cladding" is the art of producing a composite metal containing two or more layers that have been metallurgically bonded together by roll bonding (co-rolling), solder application (or brazing), or explosion bonding.
- (h) "Contact cooling water" is any wastewater which contacts the metal workpiece or the raw materials used in forming metals for the purpose of removing heat from the metal.
- (i) "Continuous casting" is the production of sheet, rod, or other long shapes by solidifying the metal while it is being poured through an open-ended mold.
- (j) "Degreasing" is the removal of oils and greases from the surface of the metal workpiece. This process can be accomplished with detergents as in alkaline cleaning or by the use of solvents
- (k) "Direct chill casting" is the pouring of molten nonferrous metal into a water-cooled mold. Contact cooling water is sprayed onto the metal as it is dropped into the mold, and the metal ingot falls into a water bath at the end of the casting process.
- (l) "Drawing" is the process of pulling a metal through a die or succession of dies to reduce the metal's diameter or alter its cross-sectional shape.
- (m) "Dye penetrant testing" is a nondestructive method for finding discontinuities that are open to the surface of the metal. A dye is applied to the surface of metal and the excess is rinsed off. Dye that penetrates surface discontinuities will not be rinsed away thus marking these discontinuities.
- (n) "Emulsions" are stable dispersions of two immiscible liquids. In the Nonferrous Metals Forming and Metal Powders Point Source category, this is usually an oil and water mixture.
- (o) "Electrocoating" is the electrodeposition of a metallic or non-metallic coating onto the surface of a workpiece.
- (p) "Extrusion" is the application of pressure to a billet of metal, forcing the metal to flow through a die orifice.
- (q) "Forging" is deforming metal, usually hot, with compressive force into desired shapes, with or without dies. Where dies are used, the metal is forced to take the shape of the die.

(r) "Grinding" is the process of removing stock from a workpiece by the use of a tool consisting of abrasive grains held by a rigid or semi-rigid grinder. Grinding includes surface finishing, sanding, and slicing.

(s) "Heat treatment" is the application of heat of specified temperature and duration to change the physical

properties of the metal.

(t) "Hot pressing" is forming a powder metallurgy compact at a temperature high enough to effect concurrent sintering.

(u) "Hydrotesting" is the testing of piping or tubing by filling with water and pressurizing to test for integrity.

- (v) "Impregnation" is the process of filling pores of a formed powder part, usually with a liquid such as a lubricant, or mixing particles of a nonmetallic substance in a matrix of metal powder.
- (w) "In-process control technology" is the conservation of chemicals and water throughout the production operations to reduce the amount of wastewater to be discharged.
- (x) "Metal powder production" operations are mechanical process operations which convert metal to a finely divided form.
- (y) "Milling" is the mechanical treatment of a nonferrous metal to produce powder, or to coat one component of a powder mixture with another.
- (z) "Neat oil" is a pure oil with no or few impurities added. In nonferrous metals forming, its use is mostly as a lubricant.
- (aa) "Powder forming" includes forming and compressing powder into a fully dense finished shape, and is usually done within closed dies.
- (bb) "Precious metals" include gold, platinum, palladium, and silver and their alloys. Any alloy containing 30 or greater percent by weight of precious metals is considered a precious metal alloy.
- (cc) "Product testing" includes operations such as dye penetrant testing, hydrotesting, and ultrasonic testing.
- (dd) "Refractory metals" includes the metals of columbium, tantalum, molybdenum, rhenium, tungsten and vanadium and their alloys.
- (ee) "Rolling" is the reduction in thickness or diameter of a workpiece

by passing it between lubricated steel rollers.

- (ff) "Roll bonding" is the process by which a permanent bond is created between two metals by rolling under high pressure in a bonding mill (co-rolling).
- (gg) "Sawing" is cutting a workpiece with a band, blade, or circular disc having teeth.
- (hh) "Shot casting" is the production of shot by pouring molten metal in finely divided streams to form spherical particles.
- (ii) "Stationary casting" is the pouring of molten metal into molds and allowing the metal to cool.
- (jj) "Surface treatment" is a chemical or electrochemical treatment applied to the surface of a metal. Such treatments include pickling, etching, conversion coating, phosphating, and chromating. Surface treatment baths are usually followed by a water rinse. The rinse may consist of single or multiple stage rinsing. For the purposes of this part, a surface treatment operation is defined as a bath followed by a rinse, regardless of the number of stages. Each surface treatment bath, rinse combination is entitled to discharge allowance.
- (kk) "Swaging" is a process in which a solid point is formed at the end of a tube, rod, or bar by the repeated blows of one or more pairs of opposing dies.
- (ll) "Tube reducing" is an operation which reduces the diameter and wall thickness of tubing with a mandrel and a pair of rolls with tapered grooves.
- (mm) "Tumbling" or "barrel finishing" is an operation in which castings, forgings, or parts pressed from metal powder are rotated in a barrel with ceramic or metal slugs or abrasives to remove scale, fins, or burrs. It may be done dry or with an aqueous solution.
- (nn) "Ultrasonic testing" is a nondestructive test which applies sound, at a frequency above about 20 HJz, to metal, which has been immersed in liquid (usually water) to locate inhomogeneities or structural discontinuities.
- (oo) "Wet air pollution control scrubbers" are air pollution control devices used to remove particulates and fumes from air by entraining the pollutants in a water spray.

(pp) "Grab sample" is a single sample which is collected at a time and place most representative of total discharge.

- (qq) "Composite sample" is a sample composed of no less than eight grab samples taken over the compositing period.
- (rr) A "flow proportional composite sample" is composed of grab samples collected continuously or discretely in proportion to the total flow at time of collection or to the total flow since collection of the previous grab sample. The grab volume or frequency of grab collection may be varied in proportion to flow.
- (ss) The term "control authority" is defined as the POTW if it has an approved pretreatment program; in the absence of such a program, the NPDES State if it has an approved pretreatment program or EPA if the State does not have an approved program.
- (tt) "Continuous operations" means that the industrial user introduces regulated wastewaters to the POTW throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.
- (uu) "Intermittent operations" means the industrial users does not have a continuous operation.
- (vv) The term "off-kg (off-lb)" means the mass of metal or metal alloy removed from a forming operation at the end of a process cycle for transfer to a different machine or process.

§471.03 Compliance date for PSES.

The compliance date for PSES under this regulation is August 23, 1988.

Subpart A—Lead-Tin-Bismuth Forming Subcategory

§ 471.10 Applicability; description of the lead-tin-bismuth forming subcategory.

This subpart applies to discharges of pollutants to waters of the United States, and introductions of pollutants into publicly owned treatment works

from the process operations of the leadtin-bismuth forming subcategory.

§471.11 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations for the process operations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

(a) Rolling spent emulsions.

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of lead- rolled with
Antimony	0.068	0.030
Lead	0.010	0.005
Oil and grease	0.468	0.281
TSS	0.960	0.457
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(b) Rolling spent soap solutions.

SUBPART A—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pound) of lead-tin- bismuth rolled with soap solutions	
Antimony	0.125	0.055
Lead	0.019	0.009
Oil and grease	0.860	0.520
TSS	1.80	0.840
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(d) Drawing spent emulsions.

⁽c) *Drawing spent neat oils—Subpart A—BPT.* There shall be no discharge of process wastewater pollutants.

SUBPART A-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of lead- drawn with
Antimony	0.076	0.034
Lead	0.011	0.005
Oil and grease	0.526	0.316
TSS	1.08	0.513
pH		(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(e) Drawing spent soap solutions.

SUBPART A-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth drawn with soap solutions	
Antimony	0.022	0.010
Lead	0.003	0.002
Oil and grease	0.149	0.090
TSS	0.306	0.146
pH		(1)

 $^{^{\}mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$

(f) Extrusion press and solution heat treatment contact cooling water.

SUBPART A-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds of lead-tin- bismuth heat treated	
Antimony	4.14	1.850
Lead	0.605	0.288
Oil and grease	28.80	17.30
TSS	59.10	28.10
pH		(¹)

¹ Within the range of 7.5 to 10.0 at all times.

SUBPART A-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth extruded	
Antimony	0.158	0.071
Lead	0.023	0.011
Oil and grease	1.10	0.660
TSS	2.26	1.07
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(h) Continuous strip casting contact cooling water.

SUBPART A-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth cast by the continuous strip method	
Antimony	0.003	0.001
Lead	0.0004	0.0002
Oil and grease	0.020	0.012
TSS	0.041	0.020
pH		(1)

¹Within the range of 7.5 to 10.0 at all times.

(i) Semi-continuous ingot casting contact cooling water.

SUBPART A-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	tin-bismuth i	inds per mil- nds) of lead- ingot cast by tinuous meth-
Antimony	0.085	0.038
Lead	0.013	0.006
Oil and grease	0.588	0.353
TSS	1.21	0.574
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

⁽g) Extrusion press hydraulic fluid leakage.

⁽j) Shot casting contact cooling water.

SUBPART A-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth shot cast	
Antimony	0.107	0.048
Lead	0.016	0.008
Oil and grease	0.746	0.448
TSS	1.53	0.728
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(k) Shot-forming wet air pollution control scrubber blowdown.

SUBPART A-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth shot formed	
Antimony	1.69 0.247	0.753 0.118
Oil and grease	11.8	7.06
TSS	24.1	11.5
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(1) Alkaline cleaning spent baths.

SUBPART A-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of lead- alkaline
Antimony	0.345	0.154
Lead	0.051	0.024
Oil and grease	2.40	1.44
TSS	4.92	2.34
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(m) Alkaline cleaning rinse.

SUBPART A-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth alkaline cleaned	
Antimony	6.78	3.02
Lead	0.991	0.472
Oil and grease	47.2	28.4
TSS	96.8	46.0
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(n) Swaging spent emulsions.

SUBPART A-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth swaged with emulsion	
Antimony	0.005	0.002
Lead	0.0007	0.0004
Oil and grease	0.036	0.022
TSS	0.073	0.034
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(o) Degreasing spent solvents—Subpart A—BPT. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

§ 471.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

(a) Rolling spent emulsions.

SUBPART A-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth rolled with emulsion	
Antimony	0.067 0.010	0.030 0.005

(b) Rolling spent soap solutions.

SUBPART A-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth rolled with soap solutions	
Antimony	0.120 0.018	0.055 0.009

(c) Drawing spent neat oils—Subpart A—BAT. There shall be no discharge of process wastewater pollutants.

(d) Drawing spent emulsions.

SUBPART A-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth drawn with emulsions	
Antimony	0.080 0.011	0.034 0.005

(e) Drawing spent soap solutions.

SUBPART A-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth drawn with soap solutions	
Antimony	0.022 0.003	0.010 0.002

(f) Extrusion press and solution heat treatment contact colling water.

SUBPART A-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds/per mil- lion off-pounds) of lead- tin-bismuth heat treated	
Antimony	0.414 0.061	0.185 0.030

(g) Extrusion press hydraulic fluid leakage.

SUBPART A-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds/per mil- lion off-pounds) of lead- tin-bismuth extruded	
Antimony	0.158 0.023	0.071 0.011

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SUBPART A-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth cast by the continuous strip method	
AntimonyLead	0.003 0.0004	0.001 0.0002

(i) Semi-continuous ingot casting contact cooling water.

SUBPART A-BAT

Maximum for any 1 day	Maximum for monthly aver- age
mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth cast by the continuous strip method	
0.009 0.001	0.004 0.0006
	mg/off-kg (poulion off-pour tin-bismuth continuous si

(j) Shot casting contact cooling water.

SUBPART A-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead- tin-bismuth shot cast	
Antimony	0.107 0.016	0.048 0.008

(k) Shot-forming wet air pollution control scrubber blowdown.

SUBPART A-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth shot formed	
Antimony	0.169 0.025	0.076 0.012

(1) Alkaline cleaning spent baths.

SUBPART A-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth alkaline cleaned	
Antimony	0.345 0.051	0.154 0.024

(m) Alkaline cleaning rinse.

SUBPART A-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth alkaline cleaned	
Antimony Lead	0.678 0.099	0.302 0.047

(n) Swaging spent emulsions.

SUBPART A-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of lead- swaged with
AntimonyLead	0.005 0.0008	0.002 0.0004

(o) *Degreasing spent solvents—Subpart A—BAT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

§ 471.13 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards. The mass of pollutants in the lead-tin-bismuth forming operations' process wastewater shall not exceed the following values:

(a) Rolling spent emulsions.

SUBPART A-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of lead- rolled with
Antimony	0.067	0.030
Lead	0.010	0.005
Oil and grease	0.468	0.281
TSS	0.960	0.457
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(b) Rolling spent soap solutions.

SUBPART A-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth rolled with soap solutions	
Antimony	0.120 0.018	0.055 0.009
Oil and grease	0.860	0.520
TSS	1.80	0.840
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (c) Drawing spent neat oils—Subpart A—NSPS. There shall be no discharge of process wastewater pollutants.
 - (d) Drawing spent emulsions.

SUBPART A-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth drawn with emulsions	
Antimony	0.076	0.034
Lead	0.011	0.005
Oil and grease	0.526	0.316
TSS	1.087	0.513
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(e) Drawing spent soap solutions.

SUBPART A-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth drawn with soap solutions	
Antimony	0.022	0.010
Lead	0.003	0.002
Oil and grease	0.149	0.090
TSS	0.306	0.146
pH		(1)

 $^{^{\}mbox{\scriptsize 1}}\mbox{\ensuremath{\mbox{Within}}}$ the range of 7.5 to 10.0 at all times.

(f) Extrusion press and solution heat treatment contact cooling water.

SUBPART A-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth heat treated	
Antimony	0.414	0.185
Lead	0.061	0.030
Oil and grease	2.80	1.72
TSS	5.91	2.81
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

SUBPART A-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth extruded	
Antimony	0.158	0.071
Lead	0.023	0.011
Oil and grease	1.10	0.660
TSS	2.26	1.07
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(h) Continuous strip casting contact cooling water.

SUBPART A-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth cast by the continuous strip method	
Antimony	0.003	0.001
Lead	0.0004	0.0002
Oil and grease	0.020	0.012
TSS	0.041	0.020
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(i) Semi-continuous ingot casting contact cooling water.

SUBPART A-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth ingot cast by the semi-continuous meth- od	
Antimony	0.009	0.004
Lead	0.001	0.0006
Oil and grease	0.059	0.036
TSS	0.121	0.058
pH		(¹)

 $^{^{\}mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$

(j) Shot casting contact cooling water.

⁽g) Extrusion press hydraulic fluid leakage.

SUBPART A-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth shot cast	
Antimony	0.107	0.048
Lead	0.016	0.008
Oil and grease	0.746	0.448
TSS	1.53	0.728
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(k) Shot-forming wet air pollution control scrubber blowdown.

SUBPART A-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth shot formed	
Antimony Lead Oil and grease	0.169 0.025 1.18	0.076 0.012 0.706
TSS	2.41	1.15 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

(1) Alkaline cleaning spent baths.

SUBPART A-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of lead- alkaline
Antimony	0.345	0.154
Lead	0.051	0.024
Oil and grease	2.40	1.44
TSS	4.92	2.34
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(m) Alkaline cleaning rinse.

SUBPART A-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of lead- alkaline
Antimony	0.678	0.302
Lead	0.099	0.047
Oil and grease	4.72	2.84
TSS	9.68	4.60
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(n) Swaging spent emulsions.

SUBPART A-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of lead- swaged with
Antimony	0.005	0.002
Lead	0.0008	0.0004
Oil and grease	0.036	0.022
TSS	0.073	0.035
pH		(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(o) Degreasing spent solvents—Subpart A—NSPS. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

§471.14 Pretreatment standards for existing sources (PSES).

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and by August 23, 1988, achieve the pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in lead-tin-bismuth forming process wastewater introduced into a POTW shall not exceed the following values:

(a) Rolling spent emulsions.

SUBPART A-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth rolled with emulsions	
Antimony	0.067 0.010	0.030 0.005

(b) Rolling spent soap solutions.

SUBPART A-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pour tin-bismuth soap solution	nds) of lead- rolled with
Antimony	0.120 0.018	0.055 0.009

(c) Drawing spent neat oils—Subpart A—PSES. There shall be no discharge of process wastewater pollutants.

(d) Drawing spent emulsions.

SUBPART A—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth drawn with emulsions	
Antimony	0.076 0.011	0.034 0.005

$\ \, (e) \,\, \textit{Drawing spent soaps solutions}.$

SUBPART A-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth drawn with soap olutions	
Antimony	0.022 0.003	0.010 0.002

(f) Extrusion press and solution heat treatment contact cooling water.

SUBPART A-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth heat treated	
Antimony	0.414 0.061	0.185 0.029

(g) Extrusion press hydraulic fluid leakage.

SUBPART A-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth extruded	
Antimony	0.158 0.023	0.071 0.011

(h) Continuous strip casting contact cooling water.

SUBPART A-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bis-muth cast by the continuous strip method	
Antimony	0.003 0.0004	0.001 0.0002

(i) Semi-continuous ingot casting contact cooling water.

SUBPART A-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mi lion off-pounds) of lead tin-bismuth cast by th semi-continuous stri method	
Antimony	0.009 0.001	0.004 0.0006

(j) Shot casting contact cooling water.

SUBPART A-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth shot cast	
Antimony	0.107 0.016	0.048 0.008

(k) Shot-forming wet air pollution control scrubber blowdown.

SUBPART A-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth shot formed	
AntimonyLead	0.169 0.025	0.076 0.012

(1) Alkaline Cleaning Spent Baths.

SUBPART A-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth alkaline cleaned	
Antimony	0.345 0.051	0.154 0.024

(m) Alkaline cleaning rinse.

SUBPART A-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth alkaline cleaned	
Antimony	0.678 0.099	0.302 0.047

(n) Swaging spent emulsions.

SUBPART A-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		unds per mil- nds) of lead- swaged with
AntimonyLead	0.005 0.0008	0.002 0.0004

(o) Degreasing spent solvents—Subpart A—PSES. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

§471.15 Pretreatment standards for new sources (PSNS).

Except as provided in 40 CFR 403.7, any new sources subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in lead-tin-bismuth forming process wastewater introduced into a POTW shall not exceed the following values:

(a) Rolling spent emulsions.

SUBPART A-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		-pounds) of muth rolled
Antimony Lead	0.067 0.010	0.030 0.005

(b) Rolling spent soap solutions.

SUBPART A-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth rolled with soap solutions	
Antimony	0.120 0.018	0.055 0.009

(c) Drawing spent neat oils—Subpart A—PSNS. There shall be no discharge of process wastewater pollutants.

(d) Drawing spent emulsions.

SUBPART A-PSNS

Pollutant or pollutant property	Maximum Maximur for any 1 for month day average	
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth drawn with emulsions	
Antimony	0.076 0.011	0.034 0.005

(e) Drawing spent soap solutions.

SUBPART A-PSNS

Pollutant or pollutant property	Maximum for any 1 day for month! day mg/off-kg (pounds pe million off-pounds) o lead-tin-bismuth drawr with soap solutions	
Antimony	0.022 0.003	0.010 0.002

(f) Extrusion press and solution heat treatment contact cooling water.

SUBPART A-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds pe million off-pounds) o lead-tin-bismuth hea treated	
Antimony	0.414 0.061	0.185 0.029

(g) Extrusion press hydraulic fluid leakage.

SUBPART A-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (p million off- lead-tin-bisr truded	
Antimony	0.158 0.023	0.071 0.011

(h) Continuous strip casting contact cooling water.

SUBPART A-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		pounds) of nuth cast by
Antimony	0.003	0.001
Lead	0.0004	0.0002

(i) Semi-continuous ingot casting contact cooling water.

SUBPART A-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	lead-tin-bisr	-pounds) of muth ingot semi-contin-
Antimony Lead	0.009 0.001	0.004 0.0006

(j) Shot casting contact cooling water.

SUBPART A-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (p million off- lead-tin-bisr cast	
Antimony	0.107 0.016	0.048 0.008

(k) Shot-forming wet air pollution control scrubber blowdown.

SUBPART A-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth shot formed	
Antimony	0.169 0.025	0.076 0.012

(1) Alkaline cleaning spent baths.

SUBPART A-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of lead-tin-bismuth alka- line cleaned	
Antimony	0.345 0.051	0.154 0.024

(m) Alkaline cleaning rinse.

SUBPART A-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth alkaline cleaned	
Antimony	0.678 0.099	0.302 0.047

(n) Swaging spent emulsions.

SUBPART A-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of lead- tin-bismuth swaged with emulsion	
Antimony	0.005 0.0008	0.003 0.0004

(o) *Degreasing spent solvents—Subpart A—PSNS*. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

§471.16 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart B—Magnesium Forming Subcategory

§ 471.20 Applicability; description of the magnesium forming subcategory.

This subpart applies to discharges of pollutants to waters of the United States, and introductions of pollutants

into publicly owned treatment works from the process operations of the magnesium forming subcategory.

§471.21 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations for the process operations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

(a) Rolling spent emulsions.

SUBPART B-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of magne- vith emulsions
Chromiun Zinc Ammonia Fluoride Oil and grease TSS	0.033 0.109 9.95 4.440 1.49 3.06	0.014 0.046 4.37 1.97 0.895 1.46
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(b) Forging spent lubricants—Subpart B—BPT. There shall be no discharge of process wastewater pollutants.

(c) Forging contact cooling water.

SUBPART B-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of forged cooled with
Chromium Zinc Ammonia Fluoride Oil and grease TSS	1.27 4.22 385 172 57.8 119	0.520 1.77 170 76.3 34.7 56.4
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(d) Forging equipment cleaning wastewater.

SUBPART B-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of magnesium forged	
Chromium Zinc Ammonia Fluoride Oil and grease TSS	0.018 0.059 5.32 2.38 0.798 1.64	0.007 0.025 2.34 1.06 0.479 0.778
pH		(1)

 $^{^{\}mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$

(e) Direct chill casting contact cooling water.

SUBPART B-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium cast with direct chill methods	
Chromium	1.74	0.711
Zinc	5.77	2.41
Ammonia	527	232
Fluoride	235	105
Oil and grease	79.0	47.4
TSS	162	77.1
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

$(f) \ \textit{Surface treatment spent baths}.$

SUBPART B-BPT

GOBITATO BIT		
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium surface treated	
OI :	0.005	
Chromium	0.205	0.084
Zinc	0.681	0.285
Ammonia	62.1	27.3
Fluoride	27.8	12.3
Oil and grease	9.32	5.59
TSS	19.1	9.09
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(g) Surface treatment rinse.

SUBPART B-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium surface treated	
Chromium	8.32	3.4
Zinc	27.6	11.5
Ammonia	2520	1110
Fluoride	1130	499
Oil and grease	378	227
TSS	775	369
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(h) Sawing or grinding spent emulsions.

SUBPART B-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poun sium sawed	ds) of magne-
Chromium	0.009	0.004
Zinc	0.029	0.012
Ammonia	2.60	1.15
Fluoride	1.16	0.515
Oil and grease	0.390	0.234
TSS	0.800	0.381
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (i) Degreasing spent solvents—Subpart B—BPT. There shall be no discharge of process wastewater pollutants.
- (j) Wet air pollution control scrubber blowdown.

SUBPART B-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium sanded and repaired or forged	
Chromium	0.273	0.112
Zinc	0.904	0.378
Ammonia	82.5	36.3
Fluoride	36.9	16.4
Oil and grease	12.4	7.43
TSS	25.4	12.1
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

§471.22 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

(a) Rolling spent emulsions.

SUBPART B-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium rolled with emulsions	
ChromiumZincAmmoniaFluoride	0.033 0.109 9.95 4.44	0.014 0.046 4.37 1.97

- (b) Forging spent lubricants—Subpart B—BAT. There shall be no discharge of process wastewater pollutants.
 - (c) Forging contact cooling water.

SUBPART B-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of forged magnesium cooled with water	
Chromium Zinc Ammonia Fluoride	0.127 0.422 38.5 17.2	0.052 0.177 17.0 7.63

(d) Forging equipment cleaning wastewater.

SUBPART B-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of mag- nesium forged	
Chromium	0.002 0.006 0.532 0.238	0.0007 0.003 0.234 0.106

(e) Direct chill casting contact cooling water.

SUBPART B-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium cast with direct chill methods	
Chromium Zinc Ammonia Fluoride	1.74 5.77 527 235	0.711 2.41 232 105

(f) Surface treatment spent baths.

SUBPART B-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium surface treated	
Chromium	0.205	0.084
Zinc	0.681	0.285
Ammonia	62.1	27.3
Fluoride	27.8	12.3

(g) Surface treatment rinse.

SUBPART B-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium surface treated	
ChromiumZincAmmoniaFluoride	0.832 2.76 252 113	0.340 1.16 111 49.9

(h) Sawing or grinding spent emulsions.

SUBPART B-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium sawed or ground	
Chromium	0.009 0.029	0.004 0.012
Ammonia	2.60	1.15
Fluoride	1.16	0.515
Fluoriae	1.10	0.515

- (i) Degreasing spent solvents—Subpart B—BAT. There shall be no discharge of process wastewater pollutants.
- (j) Wet air pollution control scrubber blowdown.

SUBPART B-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium sanded and repaired or forged	
Chromium	0.273 0.904 82.5 36.9	0.112 0.378 36.3 16.4

§ 471.23 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards. The mass of pollutants in the magnesium forming process wastewater shall not exceed the following values:

(a) Rolling spent emulsions.

SUBPART B-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of magne- vith emulsions
Chromium	0.028	0.011
Zinc	0.076	0.032
Ammonia	9.95	4.37
Fluoride	4.44	1.97
Oil and grease	0.746	0.746
TSS	1.12	0.895
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(b) Forging spent lubricants—Subpart B—NSPS. There shall be no discharge of process wastewater pollutants.

(c) Forging contact cooling water.

SUBPART B-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of forged cooled with
Chromium	0.107	0.044
Zinc	0.295	0.122
Ammonia	38.5	17.0
Fluoride	17.2	7.63
Oil and grease	2.89	2.89
TSS	4.34	3.47
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(d) Forging equipment cleaning wastewater.

SUBPART B-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		nds per million of magnesium
Chromium Zinc Ammonia Fluoride Oil and grease TSS PH	0.002 0.004 0.532 0.238 0.040 0.060 (1)	0.0006 0.002 0.234 0.106 0.040 0.048 (1)

¹ Within the range of 7.5 to 10.0 at all times.

(e) Direct chill casting contact cooling water.

SUBPART B-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
		unds per mil- ds) of magne- ith direct chill
Chromium	1.46	0.593
Zinc	4.03	1.66
Ammonia	527	232
Fluoride	235	105
Oil and grease	39.5	39.5
TSS	59.3	47.4
pH	(1)	(1)
		•

¹ Within the range of 7.5 to 10.0 at all times.

⁽f) Surface treatment spent baths.

SUBPART B-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium surface treated	
Chromium Zinc Ammonia Fluoride Oil and grease TSS pH	0.173 0.476 62.1 27.8 4.66 6.99	0.070 0.196 27.3 12.3 4.66 5.60

¹ Within the range of 7.5 to 10.0 at all times

(g) Surface treatment rinse.

SUBPART B-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pound pers mil- lion off-pounds) of magne- sium surface treated	
ChromiumZincAmmoniaFluoride	0.700 1.93 252 113	0.284 0.794 111 49
Oil and grease	18.9 28.4 (¹)	18.9 22.7 (¹)

¹ Within the range of 7.5 to 10.0 at all times

(h) Sawing or grinding spent emulsions.

SUBPART B-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium sawed or ground	
Chromium Zinc Ammonia Fluoride Oil and grease TSS pH	0.007 0.020 2.60 1.16 0.195 0.293	0.003 0.008 1.15 0.515 0.195 0.234

¹ Within the range of 7.5 to 10.0 at all times.

SUBPART B-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of magne- and repaired
Chromium	0.229	0.093
Zinc	0.632	0.260
Ammonia	82.5	36.3
Fluoride	36.9	16.4
Oil and grease	6.19	6.19
TSS	9.29	7.43
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

§471.24 Pretreatment standards for existing sources (PSES).

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and by August 23, 1988 achieve the following pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in magnesium forming process wastewater introduced into a POTW shall not exceed the following values:

(a) Rolling spent emulsions.

SUBPART B-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium rolled with emulsions	
Chromium Zinc Ammonia Fluoride	0.033 0.109 9.95 4.44	0.014 0.046 4.37 1.97

- (b) Forging spent lubricants—Subpart B—PSE. There shall be no discharge of process wastewater pollutants.
 - (c) Forging contact cooling water.

⁽i) Degreasing spent Solvents—Subpart B—NSPS. There shall be no discharge of process wastewater pollutants.

⁽j) Wet air pollution control scrubber blowdown.

SUBPART B-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium cooled with water	
Chromium	0.127 0.422 38.5 17.2	0.052 0.177 17.0 7.63

(d) Forging equipment cleaning wastewater.

SUBPART B-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of mag- nesium forged	
Chromium	0.002 0.006 0.532 0.238	0.0007 0.003 0.234 0.106

(e) Direct chill casting contact cooling water.

SUBPART B-PSES

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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium cast with direct chill methods	
Chromiun	1.74 5.77 527 235	0.711 2.41 232 105

$(f) \ \textit{Surface treatment spent baths}.$

SUBPART B-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium surface treated	
Chromiun	0.205	0.084
Zinc	0.681	0.285
Ammonia	62.1	27.3
Fluoride	27.8	12.3

(g) Surface treatment rinse.

SUBPART B-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium surface treated	
Chromiun	0.832	0.340
Zinc	2.76	1.16
Ammonia	252	111
Fluoride	113	49.9

(h) Sawing or grinding spent emulsions.

SUBPART B-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium sawed or ground	
ChromiunZinc	0.009 0.029	0.004 0.012
AmmoniaFluoride	2.60 1.16	1.15 0.515

- (i) Degreasing Spent Solvents—Subpart B—PSES. There shall be no discharge of process wastewater pollutants.
- (j) Wet air pollution control scrubber blowdown.

SUBPART B-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium sanded and repaired or forged	
Chromium	0.273	0.112
Zinc	0.904	0.378
Ammonia	8.25	36.3
Fluoride	36.9	16.4

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

§471.25 Pretreatment standards for new sources (PSNS).

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources (PSNS). The

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mass of wastewater pollutants in magnesium forming process wastewater introduced into a POTW shall not exceed the following values:

(a) Rolling spent emulsions.

SUBPART B-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium rolled with emulsions	
Chromium	0.028	0.011
Zinc	0.076	0.032
Ammonia	9.95	4.37
Fluoride	4.44	1.97

- (b) Forging spent lubricants—Subpart B—PSNS. There shall be no discharge of process wastewater pollutants.
 - (c) Forging contact cooling water.

SUBPART B-PSNS

Pollutant or pol- lutant property	Maximum for any 1 day	Maximum for monthly average	
	mg/off-kg (pounds per million off-pounds) of forged magnesium cooled with water		
Chromium	0.107	0.044	
Zinc	0.295	0.122	
Ammonia	38.5	17.0	
Fluoride	17.2	7.63	

(d) Forging equipment cleaning wastewater.

SUBPART B-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of mag- nesium forged	
Chromium	0.002 0.004 0.532 0.238	0.0006 0.002 0.234 0.106

(e) Direct chill casting contact cooling water.

SUBPART B-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium cast with direct chill methods	
Chromium	1.46 4.03 527 235	0.593 1.66 232 105

(f) Surface treatment spent baths.

SUBPART B-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium surface treated	
ChromiumZinc	0.173 0.476 62.1 27.8	0.070 0.196 27.3 12.3

(g) Surface treatment rinse.

SUBPART B-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of magne sium surface treated	
Chromium	0.700 1.93 252 113	0.284 0.794 111 49.9

(h) Sawing or grinding spent emulsions.

SUBPART B-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of magne sium sawed or ground	
Chromium	0.007 0.020 2.60 1.16	0.003 0.008 1.15 0.515

(i) Degreasing spent solvents—Subpart B—PSNS. There shall be no discharge of process wastewater pollutants.

(j) Wet air pollution control scrubber blowdown.

SUBPART B-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of magne- sium sanded and repaired or forged	
Chromium	0.229 0.632 82.5 36.9	0.093 0.260 36.3 16.4

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986]

§471.26 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart C—Nickel-Cobalt Forming Subcategory

§ 471.30 Applicability; description of the nickel-cobalt forming subcategory.

This subpart applies to discharges of pollutants to waters of the United States, and introductions of pollutants into publicly owned treatment works from the process operations of the nickel-cobalt forming subcategory.

§ 471.31 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations for the process operations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

- (a) Rolling spent neat oils—Subpart C—BPT. There shall be no discharge of process wastewater pollutants.
 - (b) Rolling spent emulsions.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt rolled with emul- sions	
Chromium	0.075	0.031
Nickel	0.327	0.216
Fluoride	10.1	4.49
Oil and grease	3.4	2.04
TSS	6.97	3.32
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(c) Rolling contact cooling water.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt rolled with water	
Chromium Nickel Fluoride Oil and grease TSS pH	1.66 7.24 225 75.4 155	0.679 4.79 99.6 45.3 73.5

¹ Within the range of 7.5 to 10.0 at all times.

- (d) Tube Reducing Spent Lubricant— Subpart C—BPT.
- (1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (d)(2) of this section.
- (2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.
- (3) The demonstration required under paragraph (d)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain

any of the foregoing nitrosamine compounds at concentrations greater than those specified in paragraph (d)(2) of this section, the actions described in paragraph (d)(4) of this section shall be taken, and the demonstration required under paragraph (d)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

- (4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in paragraph (d)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:
- (i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (d)(2) of this section; or
- (ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (d)(3) of this section; or
- (iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (d)(2) of this section and demonstrates to the satisfaction of the NPDES issuing authority that such source has been eliminated.
- (5) The concentration limits specified in paragraph (d)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:
- (i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and
- (ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

(e) Drawing spent neat oils—Subpart C—BPT. There shall be no discharge of process wastewater pollutants
(f) Drawing spent emulsions.

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt drawn with emul- sions	
Chromium Nickel Fluoride Oil and grease TSS pH	0.042 0.183 5.68 1.91 3.91	0.017 0.121 2.52 1.15 1.86 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

- (g) Extrusion spent lubricants—Subpart C—BPT. There shall be no discharge of process wastewater pollutants.
- (h) Extrusion press or solution heat treatment contact cooling water.

SUBPART C-BPT

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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt heat treated	
Chromium Nickel Fluoride Oil and grease TSS pH	0.037 0.160 4.95 1.67 3.41	0.015 0.106 2.20 0.999 1.63 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

(i) Extrusion press hydraulic fluid leakage.

SUBPART C—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt extruded	
Chromium Nickel Fluoride Oil and grease TSS pH	0.102 0.446 13.8 4.64 9.51	0.042 0.295 6.13 2.79 4.53

¹ Within the range of 7.5 to 10.0 at all times

(j) Forging equipment cleaning wastewater.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt forged	
Chromium	0.018	0.007
Nickel	0.077	0.051
Fluoride	2.38	1.06
Oil and grease	0.800	0.480
TSS	1.640	0.780
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(k) Forging contact cooling water.

SUBPART C-BPT

Maximum for any 1 day	Maximum for monthly average
mg/off-kg (pounds per mil- lion off-pounds) of forged nickel-cobalt cooled with water	
0.209	0.086
0.910	0.602
28.2	12.5
9.48	5.69
19.5	9.25
(1)	(1)
	mg/off-kg (poulion off-pounnickel-cobalt water 0.209 0.910 28.2 9.48 19.5

¹ Within the range of 7.5 to 10.0 at all times.

(1) Forging press hydraulic fluid leakage.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt forged	
Chromium	0.083 0.359 11.2 3.74 7.67	0.034 0.238 4.94 2.25 3.65
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(m) Forging spent lubricants—Subpart C—BPT. There shall be no discharge of process wastewater pollutants.

(n) Stationary casting contact cooling water.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt cast with stationary casting methods	
Chromium Nickel Fluoride Oil and grease TSS	5.33 23.3 720 242 496 (1)	2.18 15.4 320 145 236 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

- (o) Vacuum melting steam condensate—Subpart C—BPT. There shall be no allowance for the discharge of process wastewater pollutants.
- (p) Metal powder production atomization wastewater.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt metal powder atomized	
Chromium	1.16	0.472
NickelFluoride	5.03 156	3.33 69.2
Oil and grease	52.4	31.5
TSS	108	51.1
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (q) Annealing and solution heat treatment contact cooling water—Subpart C—BPT. There shall be no allowance for the discharge of process wastewater pollutants.
- (r) Wet air pollution control scrubber blowdown.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt formed	
Chromium	0.357 1.56	0.146 1.03
Fluoride	48.2	21.03
Oil and grease	16.2	9.72
TSS	33.2	15.8
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(s) Surface treatment spent baths.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt surface treated	
Chromium	0.412	0.169
Nickel	1.80	1.19
Fluoride	55.7	24.7
Oil and grease	18.7	11.2
TSS	38.4	18.3
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(t) Surface treatment rinse.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt surface treated	
Chromium	10.4	4.25
Nickel	45.3	30.0
Fluoride	1410	623
Oil and grease	472	283
TSS	968	460
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

$(u) \ \textit{Alkaline cleaning spent baths}.$

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt alkaline cleaned	
Chromium	0.015	1.52
Nickel	16.2	10.7
Fluoride	502	223
Oil and grease	169	101
TSS	346	165
pH	(1)	(1)

 $^{^{\}mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$

(v) Alkaline cleaning rinse.

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Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off- pounds) of nickel-cobalt alka- line cleaned	
Chromium	1.03	0.420
Nickel	4.48	2.96
Fluoride	139	61.5
Oil and grease	46.6	28.0
TSS	95.6	45.5
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(w) Molten salt rinse.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt treated with molten salt	
Chromium	3.72	1.52
Nickel	16.2	10.7
Fluoride	502	223
Oil and grease	169	101
TSS	346	165
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(x) Ammonia rinse.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt treated with ammo- nia solution	
Chromium	0.007	0.003
Nickel	0.029	0.019
Fluoride	0.881	0.391
Oil and grease	0.296	0.178
TSS	0.607	0.289
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(y) Sawing or grinding spent emulsions.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt sawed or ground with emulsions	
Chromium	0.018	0.007
Nickel	0.076	0.050
Fluoride	2.35	1.04
Oil and grease	0.788	0.473
TSS	1.62	0.769
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(z) Sawing or grinding rinse.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of sawed or ground nickel-cobalt rinsed	
Chromium Nickel Fluoride	0.797 3.48 108	0.326 2.30 47.8
Oil and grease	36.2	21.7
TSS	74.2	35.3
pH		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(aa) Steam Cleaning Condensate.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt steam cleaned	
Chromium	0.013	0.006
Nickel	0.058	0.039
Fluoride	1.79	0.795
Oil and grease	0.602	0.361
TSS	1.24	0.587
<u>pH</u>		(1)

¹ Within the range of 7.5 to 10.0 at all times.

(bb) Hydrostatic tube testing and ultrasonic testing wastewater—Subpart C—BPT. There shall be no allowance for the discharge of process wastewater pollutants.

(cc) *Degreasing spent solvents—Subpart C—BPT.* There shall be no discharge of process wastewater pollutants.

(dd) Dye penetrant testing wastewater.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt tested with dye penetrant method	
Chromium	0.094	0.039
Nickel	0.409	0.271
Fluoride	12.7	5.63
Oil and grease	4.26	2.56
TSS	8.74	4.16
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(ee) Electrocoating rinse.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt electrocoated	
Chromium	1.48	0.607
Nickel	6.47	4.28
Fluoride	201	89.0
Oil and grease	67.4	40.5
TSS	138	65.7
pH	(¹)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(ff) Miscellaneous wastewater sources.

SUBPART C-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poun cobalt former	ds) of nickel-
Chromium Nickel Fluoride Oil and grease TSS pH	0.108 0.473 14.7 4.92 10.1	0.044 0.313 6.50 2.95 4.80 (1)

¹ Within the range of 7.5 to 10.0 at all times.

[50 FR 34270, Aug. 23, 1985; 51 FR 2884, Jan. 22, 1986, as amended at 54 FR 11348, Mar. 17, 1989]

§ 471.32 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must

achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

(a) Rolling spent neat oils—Subpart C—BAT. There shall be no discharge of process wastewater pollutants.

(b) Rolling spent emulsions.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for	Maximum for monthly aver-
	any 1 day	age
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt rolled with emul- sions	
Chromium	0.063 0.094 10.1	0.026 0.063 4.49

(c) Rolling contact cooling water.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt rolled with water	
Chromium	0.028 0.042 4.49	0.011 0.028 1.99

- (d) Tube Reducing Spent Lubricant—Subpart C—BAT.
- (1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (d)(2) of this section.
- (2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.
- (3) The demonstration required under paragraph (d)(2) of this section shall be made once per month until the demonstration has been made for all three

nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in subparagraph (d)(2) of this section, the actions described in paragraph (d)(4) of this section shall be taken, and the demonstration required under subparagraph (d)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

- (4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in subparagraph (d)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:
- (i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (d)(2) of this section; or
- (ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (d)(3) of this section; or
- (iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (d)(2) of this section and demonstrates to the satisfaction of the NPDES issuing authority that such source has been eliminated.
- (5) The concentration limits specified in paragraph (d)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:
- (i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and
- (ii) An analytical method of sufficient sensitivity is used to measure the

levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

- (e) *Drawing spent neat oils—Subpart C—BAT.* There shall be no discharge of process wastewater pollutants.
 - (f) Drawing spent emulsions.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt drawn with emul- sions	
Chromium	0.036 0.053 5.68	0.015 0.036 2.52

- (g) Extrusion spent lubricants—Subpart C—BAT. There shall be no discharge of process wastewater pollutants.
- (h) Extrusion press or solution heat treatment contact cooling water.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of ex- truded nickel-cobalt heat treated	
Chromium	0.031 0.046 4.95	0.013 0.031 2.20

(i) Extrusion press hydraulic fluid leakage.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt extruded	
Chromium	0.086 0.128 13.8	0.034 0.086 6.13

(j) Forging equipment cleaning wastewater.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt forged	
Chromium	0.002 0.002 0.238	0.0006 0.002 0.106

(k) Forging contact cooling water.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of forged nickel-cobalt cooled with water	
Chromium	0.018 0.026 2.82	0.007 0.018 1.25

(1) Forging press hydraulic fluid leakage.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt forged	
Chromium	0.069 .103 11.2	0.028 0.069 4.94

- (m) Forging spent lubricants—Subpart C—BAT. There shall be no discharge of process wastewater pollutants.
- (n) Stationary casting contact cooling water.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt cast with stationary casting methods	
Chromium	0.448 .666 72.0	0.182 .448 32.0

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- (o) Vacuum melting steam condensate—Subpart C—BAT. There shall be no allowance for the discharge of wastewater pollutants.
- (p) Metal powder production atomization wastewater.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt metal powder atomized	
Chromium	0.970 1.44 156	0.393 .970 69.2

- (q) Annealing and solution heat treatment contact cooling water—Subpart C—BAT. There shall be no allowance for the discharge of wastewater pollutants.
- (r) Wet air pollution control scrubber blowdown.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt formed	
Chromium	0.300 .446 48.2	0.122 .300 21.4

(s) Surface treatment spent baths.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt surface treated	
Chromium	0.346 .514 55.7	0.141 .346 24.7

(t) Surface treatment rinse.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt surface treated	
Chromium	0.873 1.30 141	0.354 .873 62.3

(u) Alkaline cleaning spent baths.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt alkaline cleaned	
Chromium	0.013 0.019 2.02	0.005 0.013 0.895

(v) Alkaline cleaning rinse.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt alkaline cleaned	
Chromium	0.086 0.128 13.9	0.035 0.086 6.15

(w) Molten salt rinse.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly averge
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt treated with molten salt	
Chromium Nickel Fluoride	0.312 0.464 50.2	0.127 0.312 22.3

(x) Ammonia rinse.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt treated with ammo- nia solution	
Chromium	0.006 0.008 0.881	0.002 0.006 0.391

(y) Sawing or grinding spent emulsions.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt sawed or ground with emulsions	
Chromium	0.015 0.022 2.35	0.006 0.015 1.04

(z) Sawing or grinding rinse.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of sawed or ground nickel-cobalt rinsed	
Chromium	0.067 0.100 10.8	0.027 0.067 4.78

(aa) Steam cleaning condensate.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt steam cleaned	
Chromium	0.011 0.017 1.79	0.005 0.011 0.795

(bb) Hydrostatic tube testing and ultrasonic testing wastewater—Subpart C—BAT. There shall be no allowance for the discharge of process wastewater pollutants.

(cc) *Degreasing spent solvents—Subpart C—BAT.* There shall be no discharge of process wastewater pollutants.

(dd) Dye penetrant testing wastewater.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt tested with dye penetrant method	
Chromium Nickel Fluoride	0.079 0.117 12.7	0.032 0.079 5.63

(ee) Electrocoating rinse.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt electrocoated	
Chromium	1.25 1.86 201	0.506 1.25 89.0

(ff) Miscellaneous wastewater sources.

SUBPART C-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt formed	
Chromium	0.091 0.136 14.7	0.037 0.091 6.50

[50 FR 34270, Aug. 23, 1985; 51 FR 2885, Jan. 22, 1986, as amended at 54 FR 11348, Mar. 17, 1989; 54 FR 13606, Apr. 4, 1989]

§ 471.33 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS). The mass of pollutants in the nickelcobalt forming process wastewater shall not exceed the following values:

- (a) *Rolling spent neat oils—Subpart C—NSPS.* There shall be no discharge of process wastewater pollutants.
 - (b) Rolling spent emulsions.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		unds per mil- ids) of nickel- d with emul-
Chromium	0.063	0.026
Nickel	0.094	0.063
Fluoride	10.1	4.49
Oil and grease	1.70	1.70
TSS	2.55	2.04
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(c) Rolling contact cooling water.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt rolled with water	
Chromium Nickel Fluoride Oil and grease TSS pH	0.028 0.042 4.49 0.754 1.13	0.012 0.028 1.99 0.754 0.905

- ¹ Within the range of 7.5 to 10.0 at all times.
- (d) Tube Reducing Spent Lubricant—Subpart C—NSPS.
- (1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (d)(2) of this section.
- (2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine
- (3) The demonstration required under paragraph (d)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain

any of the foregoing nitrosamine compounds at concentrations greater than those specified in paragraph (d)(2) of this section, the actions described in paragraph (d)(4) of this section shall be taken, and the demonstration required under paragraph (d)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

- (4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in paragraph (d)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:
- (i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (d)(2) of this section; or
- (ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (d)(3) of this section; or
- (iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (d)(2) of this section and demonstrates to the satisfaction of the NPDES issuing authority that such source has been eliminated.
- (5) The concentration limits specified in paragraph (d)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:
- (i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and
- (ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

- (e) *Drawing spent neat oils—Subpart C—NSPS.* There shall be no discharge of process wastewater pollutants.
 - (f) Drawing spent emulsions.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt drawn with emul- sions	
Chromium	0.036	0.015
Nickel	0.053	0.036
Fluoride	5.68	2.52
Oil and grease	0.954	0.954
TSS	1.43	1.15
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (g) Extrusion spent lubricants—Subpart C—NSPS. There shall be no discharge of process wastewater pollutants.
- (h) Extrusion press or solution heat treatment contact cooling water.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of ex- truded nickel-cobalt heat treated	
Chromium	0.031	0.013
Nickel	0.046	0.031
Fluoride	4.95	2.20
Oil and grease	0.832	0.832
TSS	1.25	0.999
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(i) Extrusion press hydraulic fluid leakage.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poun cobalt extrud	ds) of nickel-
Chromium	0.086 0.128 13.8 2.32 3.48	0.035 0.086 6.13 2.32 2.79
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(j) Forging equipment cleaning wastewater.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per million of nickel-cobalt
Chromium	0.002	0.00006
Nickel	0.002	0.002
Fluoride	0.238	0.106
Oil and grease	0.040	0.040
TSS	0.060	0.048
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(k) Forging contact cooling water.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poun nickel-cobalt water	
Chromium	0.018 0.026 2.82 0.474 0.711 (¹)	0.007 0.018 1.25 0.474 0.569 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

(1) Forging press hydraulic fluid leakage.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poun cobalt forged	ds) of nickel-
Chromium	0.069	0.028
Nickel	0.103	0.069
Fluoride	11.2	4.94
Oil and grease	1.87	1.87
TSS	2.81	2.25
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (m) Forging spent lubricants—Subpart C—NSPS. There shall be no discharge of process wastewater pollutants.
- (n) Stationary casting contact cooling water.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt cast with stationary casting methods	
Chromium Nickel	0.448 0.666 72.0 12.1 18.2 (¹)	0.182 0.448 32.0 12.1 14.5 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

- (o) Vacuum melting steam condensate—Subpart C—NSPS. There shall be no allowance for the discharge of process wastewater pollutants.
- (p) Metal powder production atomization wastewater.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt metal powder atomized	
Chromium Nickel Fluoride Oil and grease TSS pH	0.970 1.44 156 26.2 39.3 (1)	0.393 0.970 69.2 26.2 31.5 (¹)

 $^{^{\}mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$

- (q) Annealing and solution heat treatment contact cooling water—Subpart C—NSPS. There shall be no allowance for the discharge of process wastewater pollutants.
- (r) Wet air pollution control scrubber blowdown.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt formed	
Chromium	0.300 0.450 48.2 8.1	0.122 0.300 21.4 8.1
TSS	12.2	9.72
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(s) Surface treatment spent baths.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt surface treated	
Chromium	0.346 0.515	0.141 0.346
Fluoride	55.7	24.7
Oil and grease	9.35	9.35
TSS	14.1	11.2
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(t) Surface treatment rinse.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt surface treated	
Chromium	0.874	0.354
Nickel	1.30	0.873
Fluoride	141	62.3
Oil and grease	23.6	23.6
TSS	35.4	28.3
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(u) Alkaline cleaning spent baths.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt alkaline cleaned	
Chromium Nickel Fluoride Oil and grease TSS pH	0.013 0.019 2.02 0.339 0.509	0.005 0.013 0.895 0.339 0.407 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

(v) Alkaline cleaning rinse.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt alkaline cleaned	
Chromium Nickel	0.086 .128 13.9 2.33 3.50	0.035 .086 6.15 2.33 2.80

¹ Within the range of 7.5 to 10.0 at all times.

(w) Molten salt rinse.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt treated with molten salt	
Chromium	0.312	0.127
Nickel	0.464	0.312
Fluoride	50.2	22.3
Oil and grease	8.44	8.44
TSS	12.7	10.1
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(x) Ammonia rinse.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt treated with ammo- nia solution	
Chromium	0.006	0.002
Nickel	.008	.006
Fluoride	.881	.391
Oil and grease	.148	.148
TSS	222	178
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(y) Sawing or grinding spent emulsions.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt sawed or ground	
Chromium	0.015	0.006
Nickel	.002	.015
Fluoride	2.35	1.04
Oil and grease	.394	.394
TSS	591	473
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(z) Sawing or grinding rinse.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of sawed or ground nickel-cobalt rinsed	
Chromium	0.067	0.027
Nickel	0.100	0.067
Fluoride	10.8	4.78
Oil and grease	1.81	1.81
TSS	2.72	217
pH	(1)	(1)

¹Within the range of 7.5 to 10.0 at all times.

(aa) Steam cleaning condensate.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt steam cleaned	
Chromium	0.011	0.005
Nickel	0.017	0.011
Fluoride	1.79	0.795
Oil and grease	0.301	0.301
TSS	0.452	0.361
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (bb) Hydrostatic tube testing and ultrasonic testing wastewater—Subpart C—NSPS. There shall be no discharge of process wastewater pollutants.
- (cc) Degreasing spent solvents.—Subpart C—NSPS. There shall be no discharge of process wastewater pollutants.
 - (dd) Dye penetrant testing wastewater.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt tested with dye penetrant method	
Chromium Nickel	0.079 0.117 12.7 2.13 3.20	0.032 0.079 5.63 2.13 2.56

¹ Within the range of 7.5 to 10.0 at all times.

(ee) Electrocoating rinse.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt electrocoated	
Chromium	1.25	0.506
NickelFluoride	1.86 201	1.25 89.0
Oil and grease	33.7	33.7
TSS	50.6	40.5
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(ff) Miscellaneous wastewater sources.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt formed	
Chromium	0.091 0.136 14.7	0.037 0.091 6.50
Oil and grease	2.46	2.46
TSS	3.69	2.95
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

[50 FR 34270, Aug. 23, 1985; 51 FR 2885, Jan. 22, 1986, as amended at 54 FR 11349, Mar. 17, 1989; 54 FR 13606, Apr. 4, 1989]

§471.34 Pretreatment standards for existing sources (PSES).

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and by August 23, 1988 achieve

the following pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in nickel-cobalt forming wastewater introduced into a POTW shall not exceed the following values:

(a) Rolling spent neat oils—Subpart C— PSES. There shall be no discharge of process wastewater pollutants.

(b) Rolling spent emulsions.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt rolled with emul- sions	
Chromium	0.063 0.094 10.1	0.026 0.063 4.49

(c) Rolling contact cooling water.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt rolled with water	
Chromium	0.028 0.042 4.49	0.011 0.028 1.99

- (d) Tube Reducing Spent Lubricant—Subpart C—PSES.
- (1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (d)(2) of this section.
- (2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.
- (3) The demonstration required under paragraph (d)(2) of this section shall be

made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in paragraph (d)(2) of this section, the actions described in paragraph (d)(4) of this section shall be taken, and the demonstration required under paragraph (d)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

- (4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in paragraph (d)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:
- (i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (d)(2) of this section; or
- (ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (d)(3) of this section; or
- (iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (d)(2) of this section and demonstrates to the satisfaction of the POTW control authority that such source has been eliminated.
- (5) The concentration limits specified in paragraph (d)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:
- (i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and

- (ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.
- (e) *Drawing spent neat oils—Subpart C—PSES.* There shall be no discharge of process wastewater pollutants.
 - (f) Drawing spent emulsions.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt drawn with emul- sions	
Chromium	0.036 0.053 5.68	0.014 0.036 2.52

- (g) Extrusion spent lubricants—Subpart C—PSES. There shall be no discharge of process wastewater pollutants.
- (h) Extrusion press or solution heat treatment contact cooling water.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of ex- truded nickel-cobalt heat treated	
Chromium	0.031 0.046 4.95	0.013 0.031 2.20

(i) Extrusion press hydraulic fluid leakage.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt extruded	
Chromium	0.086 0.128 13.8	0.034 0.086 6.13

(j) Forging equipment cleaning wastewater.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt forged	
Chromium Nickel Fluoride	0.002 0.002 0.238	0.0006 0.002 0.106

(k) Forging contact cooling water.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of forged nickel-cobalt cooled with water	
Chromium	0.018 0.026 2.82	0.007 0.018 1.25

(l) Forging press hydraulic fluid leakage.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt forged	
Chromium	0.069 0.103 11.2	0.028 0.069 4.94

- (m) Forging spent lubricants—Subpart C—PSES. There shall be no discharge of process wastewater pollutants.
- (n) Stationary casting contact cooling water.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt cast with stationary methods	
Chromium	0.448 0.666 72.0	0.182 0.448 32.0

(o) Vacuum melting steam condensate—Subpart C—PSES. There shall be no al-

lowance for the discharge of wastewater pollutants.

(p) Metal powder production atomization wastewater.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt metal powder atomized	
Chromium	0.970 1.44 156	0.393 0.970 69.2

- (q) Annealing and solution heat treatment contact cooling water—Subpart C—PSES. There shall be no allowance for the discharge of wastewater pollutants.
- (r) Wet air pollution control scrubber blowdown.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt formed	
Chromium	0.300	0.122
Nickel	0.446	0.300
Fluoride	48.2	21.4

(s) Surface treatment spent baths.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt surface treated	
Chromium	0.346 0.514 55.7	0.141 0.346 24.7

(t) Surface treatment rinse.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt surface treated	
Chromium	0.873 1.30 141	0.354 0.873 62.3

(u) Alkaline cleaning spent baths.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt alkaline cleaned	
Chromium	0.013 0.019 2.02	0.005 0.013 0.895

(v) Alkaline cleaning rinse.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt alkaline cleaned	
Chromium	0.086 0.128 13.9	0.035 0.086 6.15

(w) Molten salt rinse.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt treated with molten salt	
Chromium	0.312 0.464 50.2	0.127 0.312 22.3

(x) Ammonia rinse.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt treated with ammo- nia solution	
Chromium Nickel Fluoride	0.006 0.008 0.881	0.002 0.006 0.391

(y) Sawing or grinding spent emulsions.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt sawed or ground with emulsions	
Chromium	0.015 0.022 2.35	0.006 0.015 1.04

(z) Sawing or grinding rinse.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of sawed or ground nickel-cobal rinsed	
Chromium	0.067 0.100 10.8	0.027 0.067 4.78

(aa) Steam cleaning condensate.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt steam cleaned	
Chromium Nickel Fluoride	0.011 0.017 1.79	0.005 0.011 0.795

(bb) Hydrostatic Tube Testing and Ultrasonic Testing Wastewater—Subpart C—PSES. There shall be no allowance for the discharge of process wastewater pollutants.

(cc) Degreasing Spent Solvents—Subpart C—PSES. There shall be no discharge of process wastewater pollutants.

(dd) Dye Penetrant Testing Wastewater.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt tested with dye penetrant method	
Chromium	0.079 0.117 12.7	0.032 0.079 5.63

(ee) Electrocoating rinse.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt electrocoated	
Chromium Nickel Fluoride	1.25 1.86 201	0.506 1.25 89.0

(ff) Miscellaneous wastewater sources.

SUBPART C-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt formed	
Chromium	0.091 0.136 14.7	0.037 0.091 6.50

[50 FR 34270, Aug. 23, 1985; 51 FR 2885, Jan. 22, 1986, as amended at 54 FR 11349, Mar. 17, 1989; 54 FR 13606, Apr. 4, 1989]

§471.35 Pretreatment standards for new sources (PSNS).

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in nickel-cobalt forming process wastewater introduced

into a POTW shall not exceed the following values:

(a) *Rolling spent neat oils—Subpart C—PSNS.* There shall be no discharge of process wastewater pollutants.

(b) Rolling spent emulsions.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt rolled with emul- sions	
Chromium	0.063 0.094 10.1	0.026 0.063 4.49

(c) Rolling contact cooling water.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt rolled with water	
Chromium Nickel Fluoride	0.028 0.042 4.49	0.012 0.028 1.99

- (d) Tube Reducing Spent Lubricant—Subpart C—PSNS.
- (1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (d)(2) of this section
- (2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.
- (3) The demonstration required under subparagraph (d)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per

quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in paragraph (d)(2) of this section, the actions described in paragraph (d)(4) of this section shall be taken, and the demonstration required under paragraph (d)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.

- (4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in subparagraph (d)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:
- (i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (d)(2) of this section (2); or
- (ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (d)(3) of this section; or
- (iii) Determines the source of the pollutant whose concentration exceeded the level specified in subparagraph (2) above and demonstrates to the satisfaction of the POTW control authority that such source has been eliminated.
- (5) The concentration limits specified in paragraph (d)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:
- (i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and
- (ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosa-

mine compounds in the wastewaters being sampled. $\label{eq:compound}$

- (e) *Drawing spent neat oils—Subpart C—PSNS*. There shall be no discharge of process wastewater pollutants.
 - (f) Drawing spent emulsions.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt drawn with emul- sions	
Chromium	0.036 0.053 5.68	0.015 0.036 2.52

- (g) Extrusion spent lubricants—Subpart C—PSNS. There shall be no discharge of process wastewater pollutants.
- (h) Extrusion press or solution heat treatment contact cooling water.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of ex- truded nickel-cobalt heat treated	
Chromium Nickel Fluoride	0.031 0.046 4.95	0.013 0.031 2.20

(i) Extrusion press hydraulic fluid leakage.

SUBPART C-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt extruded	
Chromium	0.086 0.128 13.8	0.034 0.086 6.13

(j) Forging equipment cleaning wastewater.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of nickel-cobalt forged	
Chromium Nickel Fluoride	0.002 0.002 0.238	0.0006 0.002 0.106

(k) Forging contact cooling water.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of forged nickel-cobalt cooled with water	
Chromium	0.018 0.026 2.82	0.007 0.018 1.25

(l) Forging press hydraulic fluid leakage.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt forged	
Chromium	0.069 0.103 11.2	0.028 0.069 4.94

- (m) Forging spent lubricants—Subpart C—PSNS. There shall be no discharge of process wastewater pollutants.
- (n) Stationary casting contact cooling water.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt cast with stationary methods	
Chromium	0.448 0.666 72.0	0.182 0.448 32.0

(o) Vacuum melting steam condensate—Subpart C—PSNS. There shall be no al-

lowance for the discharge of process wastewater pollutants.

(p) Metal powder production atomization wastewater.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt metal powder atomized	
Chromium	0.970 1.44 156	0.393 0.970 69.2

- (q) Annealing and Solution Heat Treatment Contact Cooling Water—Subpart C—PSNS. There shall be no allowance for the discharge of process wastewater pollutant.
- (r) Wet Air Pollution Control Scrubber Blowdown.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt formed	
Chromium Nickel Fluoride	0.300 0.450 48.2	0.122 0.300 21.4

(s) Surface treatment spent baths.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt surface treated	
Chromium Nickel Fluoride	0.346 0.515 55.7	0.141 0.346 24.7

(t) Surface treatment rinse.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt surface treated	
Chromium	0.874 1.30 141	0.354 0.873 62.3

(u) Alkaline cleaning spent baths.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt alkaline cleaned	
Chromium	0.013 0.019 2.02	0.005 0.013 0.895

(v) Alkaline cleaning rinse.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt alkaline cleaned	
Chromium	0.086 0.128 13.9	0.035 0.086 6.15

(w) Molten salt rinse.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt treated with molten salt	
Chromium	0.312 0.464 50.2	0.127 0.312 22.3

(x) Ammonia rinse.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		pounds) of t treated
Chromium	0.006 0.008 0.881	0.002 0.006 0.391

(y) Sawing or grinding spent emulsions.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt sawed or ground with emulsions	
Chromium	0.015 0.022 2.35	0.006 0.015 1.04

(z) Sawing or grinding rinse.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of sawed or ground nickel-cobal rinsed	
Chromium	0.067 0.100 10.8	0.027 0.067 4.78

(aa) Steam cleaning condensate.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt steam cleaned	
Chromium	0.011 0.017 1.79	0.005 0.011 0.795

(bb) Hydrostatic tube testing and ultrasonic testing wastewater—Subpart C—PSNS. There shall be no allowance discharge of process wastewater pollutants.

(cc) *Degreasing spent solvents—Subpart C—PSNS*. There shall be no discharge of process wastewater pollutants.

(dd) Dye penetrant testing wastewater.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt tested with dye penetrant method	
Chromium	0.079 0.117 12.7	0.032 0.079 5.63

(ee) Electrocoating rinse.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt electrocoated	
Chromium Nickel	1.25 1.86 201	0.506 0.125 89.0

(ff) Miscellaneous wastewater sources.

SUBPART C-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of nickel- cobalt formed	
Chromium	0.091 0.136 14.7	0.037 0.091 6.50

[50 FR 34270, Aug. 23, 1985; 51 FR 2886, Jan. 22, 1986, as amended at 54 FR 11350, Mar. 17, 1989]

§471.36 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart D—Precious Metals Forming Subcategory

§ 471.40 Applicability; description of the precious metals forming subcategory.

This subpart applies to discharges of pollutants to waters of the United States, and introductions of pollutants into publicly owned treatment works from the process operations of the precious metals forming subcategory.

§471.41 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations for the process operations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

(a) Rolling spent neat oils—Subpart D—BPT. There shall be no discharge of process wastewater pollutants.

(b) Rolling spent emulsions.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poul cious metal emulsions	
Chromium	0.026	0.012
Copper	0.147	0.077
Cyanide	0.023	0.010
Silver	0.032	0.013
Oil and grease	1.54	0.925
TSS	3.16	1.51
pH	(¹)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(c) Drawing spent neat oils—Subpart D—BPT. There shall be no discharge of process wastewater pollutants.

(d) Drawing spent emulsions.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals drawn with emulsions	
Cadmium	0.016	0.007
Copper	0.091	0.048
Cyanide	0.014	0.006
Silver	0.020	0.008
Oil and grease	0.950	0.570
TSS	1.95	0.926
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(e) Drawing spent soap solutions.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals drawn with soap solutions	
Cadmium	0.001	0.0005
Copper	0.006	0.003
Cyanide	0.0009	0.0004
Silver	0.001	0.0006
Oil and grease	0.063	0.038
TSS	0.128	0.061
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(f) Metal powder production wet atomization wastewater.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of pre- s powder wet
Cadmium	2.27	1.00
Copper	12.7	6.70
Cyanide	1.94	0.802
Silver	2.70	1.14
Oil and grease	134	80.2
TSS	274	130
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(g) Heat treatment contact cooling water.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of ex- cious metals
Cadmium	1.42	0.626
Copper	7.93	4 17
Cyanide	1.21	0.501
Silver	1.71	0.709
Oil and grease	83.4	50.1
TSS	171	81.3
	171	01.5

¹ Within the range of 7.5 to 10.0 at all times.

(h) Semi-continuous or continuous casting contact cooling water.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of pre cious metals cast by the semi-continuous or contin- uous method	
Cadmium Copper Cyanide Silver Oil and grease TSS pH	3.50 19.6 2.99 4.23 206 423 (1)	1.55 10.3 1.24 1.75 124 209 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

- (i) Stationary casting contact cooling water—Subpart D—BPT. There shall be no discharge of process wastewater pollutants.
- (j) Direct chill casting contact cooling water.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals cast by the direct chill method	
Cadmium	3.67	1.62
Copper	20.5	10.8
Cyanide	3.13	1.30
Silver	4.43	1.84
Oil and grease	216	130
TSS	443	211
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(k) Shot casting contact cooling water.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals shot cast	
Cadmium	1.25	0.551
Copper	6.98	3.67
Cyanide	1.07	0.441
Silver	1.51	0.624
Oil and grease	73.4	44.1
TSS	151	71.6
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(l) Wet air pollution control scrubber blowdown—Subpart D—BPT. There shall be no discharge of process wastewater pollutants.

(m) Pressure bonding contact cooling water.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals and base metal pressure bonded	
Cadmium	0.029	0.013
Copper	0.159	0.084
Cyanide	0.024	0.010
Silver	0.034	0.014
Oil and grease	1.67	1.00
TSS	3.43	1.63
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(n) Surface treatment spent baths.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of pre cious metals surface treat ed	
Cadmium	0.033	0.015
Copper	0.183	0.097
Cyanide	0.028	0.012
Silver	0.040	0.017
Oil and grease	1.93	1.16
TSS	3.95	1.88
pH	(¹)	(¹)

 $^{^{\}mbox{\tiny 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$

(o) Surface treatment rinse.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals surface treat- ed	
Cadmium	2.10	0.924
Copper	11.7	5.16
Cyanide	1.79	0.739
Silver	2.53	1.05
Oil and grease	123	73.9
TSS	253	120
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(p) Alkaline cleaning spent baths.

SUBPART D—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pour cious meta cleaned	
Cadmium	0.021 0.114 0.018 0.025 1.20	0.009 0.060 0.007 0.010 0.720
TSS	2.46 (¹)	1.170 (¹)

 $^{^{\}mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$

(q) Alkaline cleaning rinse.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals alkaline cleaned	
Cadmium	3.81	1.68
Copper	21.3	11.2
Cyanide	3.25	1.35
Silver	4.59	1.91
Oil and grease	224	135
TSS	459	219
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(r) Alkaline cleaning prebonding wastewater.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for	Maximum for monthly aver-
- Olutarit of politicarit property	any 1 day	age
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals and base metal cleaned prior to bonding	
Cadmium	3.95	1.74
Copper	22.1	11.6
Cyanide	3.37	1.39
Silver	4.76	1.97
Oil and grease	232	139
TSS	476	226
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(s) Tumbling or burnishing wastewater.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals tumbled or burnished	
Cadmium	4.12	1.82
Copper	23.0	12.1
Cyanide	3.51	1.45
Silver	4.96	2.06
Oil and grease	242	145
TSS	496	236
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (t) Sawing or grinding spent neat oils—Subpart D—BPT. There shall be no discharge of process wastewater pollutants.
 - (u) Sawing or grinding spent emulsions.

SUBPART D-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals sawed or ground with emulsions	
Cadmium	0.032	0.014
Copper	0.178	0.094
Cyanide	0.027	0.011
Silver	0.039	0.016
Oil and grease	1.87	1.12
TSS	3.83	1.82
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(v) *Degreasing spent solvents—Subpart D—BPT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2886, Jan. 22, 1986]

§471.42 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

- (a) Rolling spent neat oils—Subpart D—BAT. There shall be no discharge of wastewater pollutants.
 - (b) Rolling spent emulsions.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	lion off-pou	unds per mil- unds) of pre- ls rolled with
Cadmium	0.026	0.012
Copper	0.147	0.077
Cyanide	0.023	0.010
Silver	0.032	0.013

- (c) Drawing spent neat oils—Subpart D—BAT. There shall be no discharge of process wastewater pollutants.
 - (d) Drawing spent emulsions.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		pounds) of letals drawn
Cadmium	0.016	0.007
Copper	0.091	0.048
Cyanide	0.014	0.006
Silver	0.020	0.008

(e) Drawing spent soap solutions.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals drawn with soap solutions	
Cadmium	0.001 0.006 0.0009 0.002	0.0005 0.003 0.0004 0.0006

(f) Metal powder production wet atomization wastewater.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals powder wet atomized	
Cadmium	2.27	1.00
Copper	12.7	6.68
Cyanide	1.94	0.802
Silver	2.74	1.14

(g) Heat treatment contact cooling water.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds pe million off-pounds) of precious metals hea treated	
Cadmium	0.142	0.063
Copper	0.793	0.417
Cyanide	0.121	0.050
Silver	0.171	0.071

(h) Semi-continuous and continuous casting contact cooling water.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals cast by the semi-continuous or contin- uous method	
Cadmium Copper Cyanide Silver	0.350 1.96 0.299 0.423	0.155 1.03 0.124 0.175

- (i) Stationary casting contact cooling water—Subpart D—BAT. There shall be no discharge of process wastewater pollutants
- (j) Direct chill casting contact cooling water.

Subpart D—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	off-pounds)	nds per million of precious by the direct
Cadmium	0.3676 2.05 0.313 0.443	0.162 1.08 0.130 0.184

(k) Shot casting contact cooling water.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals shot cast	
Cadmium	0.125 0.698 0.107 0.151	0.055 0.367 0.044 0.063

- (l) Wet air pollution control scrubber blowdown—Subpart D—BAT. There shall be no discharge of process wastewater pollutants.
- (m) Pressure bonding contact cooling water.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metal and base metal pressure bonded	
Cadmium Copper Cyanide Silver	0.0297 0.159 0.0247 0.0342	0.013 0.084 0.010 0.014

(n) Surface treatment spent baths.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		oounds per pounds) of etals surface
Cadmium	0.033 0.183 0.028 0.040	0.015 0.097 0.012 0.017

(o) Surface treatment rinse.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals surface treated	
Cadmium	0.210 1.17	0.093 0.616
Cyanide	0.179	0.074
Silver	0.253	0.105

(p) Alkaline cleaning spent baths.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of precious metals alkaline cleaned	
Cadmium	0.021 0.114 0.018 0.025	0.009 0.060 0.007 0.010

(q) Alkaline cleaning rinse.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals alkaline cleaned	
Cadmium Copper Cyanide	0.381 2.13 0.325	0.168 1.12 0.135
Silver	0.459	0.191

(r) Alkaline cleaning prebonding wastewater.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metal and base metal cleaned prior to bonding	
Cadmium Copper Cyanide	0.400 2.210 0.337	0.174 1.16 0.139
Silver	0.476	0.197

(s) Tumbling or burnishing wastewater.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals tumbled or burnished	
Cadmium	0.412 2.300 0.351 0.496	0.182 1.21 0.145 0.206

- (t) Sawing or grinding spent neat oils—Subpart D—BAT. There shall be no discharge of process wastewater pollutants.
 - (u) Sawing or grinding spent emulsions.

SUBPART D-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals sawed or ground with emulsions	
Cadmium	0.0327 0.178	0.014 0.094
Cyanide	0.0277 0.0381	0.011 0.016

(v) Degreasing spent solvents—Subpart D—BAT. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2886, Jan. 22, 1986]

§471.43 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

(a) Rolling Spent Neat Oils—Subpart D—NSPS. There shall be no discharge of process wastewater pollutants.

(b) Rolling spent emulsions.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poul cious metal emulsions	
Cadmium	0.026	0.012
Copper	0.147	0.077
Cyanide	0.023	0.010
Silver	0.032	0.013
Oil and grease	1.54	0.925
TSS	3.16	1.51
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(c) Drawing spent neat oils—Subpart D—NSPS. There shall be no discharge of process wastewater pollutants.

(d) Drawing spent emulsions.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of pre cious metals drawn with emulsions	
Cadmium	0.017	0.007
Copper	0.091	0.048
Cyanide	0.014	0.006
Silver	0.020	0.008
Oil and grease	0.950	0.570
TSS	1.95	0.927
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(e) Drawing spent soap solutions.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
		nds) of pre- s drawn with
Cadmium Copper Cyanide Silver Oil and grease TSS pH	0.001 0.006 0.0009 0.002 0.063 0.128	0.0005 0.003 0.0004 0.0006 0.038 0.061

¹ Within the range of 7.5 to 10.0 at all times.

(f) Metal powder production atomization wastewater.

SUBPART D-NSPS

Maximum for any 1 day	Maximum for monthly average
lion off-pour	inds per mil- nds) of pre- s powder wet
2.27	1.00
	6.68
1	1
1.94	0.802
2.74	1.14
134	80.2
274	131
(¹)	(¹)
	mg/off-kg (poulion off-poulion off-poulion off-poulious metals atomized 2.27 12.7 1.94 2.74 134 274

¹ Within the range of 7.5 to 10.0 at all times.

⁽g) Heat treatment contact cooling water.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals heat treated	
Cadmium Copper Cyanide Silver Oil and grease TSS pH	0.142 0.793 0.121 0.171 8.34 17.1	0.063 0.417 0.050 0.071 5.01 8.13

¹ Within the range of 7.5 to 10.0 at all times.

(h) Semi-continuous and continuous casting contact cooling water.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of pre- cious metals cast by the semi-continuous or contin- uous method	
Cadmium	0.350	0.155
Copper	1.96	1.03
Cyanide	0.299	0.124
Silver	0.423	0.175
Oil and grease	20.6	12.4
TSS	42.3	20.1
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

- (i) Stationary casting contact cooling water—Subpart D—NSPS. There shall be no discharge of process wastewater pollutants.
- (j) Direct chill casting contact cooling water.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals cast by the direct chill method	
Cadmium	0.367 2.05	0.162 1.08
Cyanide	0.313	0.130
Silver	0.443	0.130
Oil and grease	21.6	13.0
TSS	44.3	21.1
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(k) Shot casting contact cooling water.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals shot cast	
Cadmium	0.125	0.055
Copper	0.698	0.367
Cyanide	0.107	0.044
Silver	0.151	0.063
Oil and grease	7.34	4.41
TSS	15.1	7.16
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (l) Wet air pollution control scrubber blowdown—Subpart D—NSPS. There shall be no discharge of process wastewater pollutants.
- (m) Pressure bonding contact cooling water.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of pre cious metals and base metal pressure bonded	
Cadmium	0.029	0.013
Copper	0.159	0.084
Cyanide	0.024	0.010
Silver	0.034	0.014
Oil and grease	1.67	1.00
TSS	3.43	1.63
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(n) Surface treatment spent baths.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mi lion off-pounds) of pre cious metals surface treat ed	
Cadmium	0.033	0.015
Copper	0.183	0.097
Cyanide	0.028	0.012
Silver	0.040	0.017
Oil and grease	1.93	1.16
TSS	3.95	1.88
pH	(¹)	(¹)

 $^{^{\}mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$

(o) Surface treatment rinse.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		unds per mil- nds) of pre- surface treat-
Cadmium	0.210	0.093
Copper	1.17	0.616
Cyanide	0.179	0.074
Silver	0.253	0.105
Oil and grease	12.3	7.39
TSS	25.3	12.0
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(p) Alkaline cleaning spent baths.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of pre- als alkaline
Cadmium	0.021	0.009
Copper	0.114	0.060
Cyanide	0.018	0.007
Silver	0.025	0.010
Oil and grease	1.20	0.720
TSS	2.46	1.17
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

$\ \, \text{(q) Alkaline cleaning rinse.}$

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals alkaline cleaned	
Cadmium	0.381	0.168
_		
Copper	2.13	1.112
Cyanide	0.325	0.135
Silver	0.459	0.191
Oil and grease	22.4	13.5
TSS	45.9	21.9
pH	(¹)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(r) Alkaline cleaning pre-bonding wastewater.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals and base metal cleaned prior to bonding	
Cadmium	0.400	0.174
Copper	2.21	1.16
Cyanide	0.337	0.139
Silver	0.476	0.197
Oil and grease	23.2	13.9
TSS	47.6	22.6
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(s) Tumbling or burnishing wastewater.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of pre- s tumbled or
Cadmium	0.412 2.30	0.182 1.21
Cyanide	0.351	0.145
Silver	0.496	0.206
Oil and grease	24.2	14.5
TSS	49.6	23.6
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(t) Sawing or grinding spent neat oils—Subpart D—NSPS. There shall be no discharge of process wastewater pollutants.

(u) Sawing or grinding spent emulsions.

SUBPART D-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals sawed or ground with emulsions	
Cadmium	0.032	0.014
Copper	0.178	0.094
Cyanide	0.027	0.011
Silver	0.038	0.016
Oil and grease	1.87	1.12
TSS	3.83	1.82
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(v) Degreasing spent solvents—Subpart D—NSPS. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2886, Jan. 22, 1986]

§471.44 Pretreatment standards for existing sources (PSES).

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and by August 23, 1985 achieve the following pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in precious metals forming process wastewater introduced into a POTW shall not exceed the following values:

- (a) Rolling spent neat oils—Subpart D—PSES. There shall be no discharge of process wastewater pollutants.
 - (b) Rolling spent emulsions.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of pre- s rolled with
Cadmium	0.026	0.012
Copper	0.147	0.077
Cyanide	0.023	0.010
Silver	0.032	0.013

- (c) *Drawing spent neat oils—Subpart D—PSES*. There shall be no discharge of process wastewater pollutants.
 - (d) Drawing spent emulsions.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals drawn with emulsions	
Cadmium	0.016 0.091 0.014 0.020	0.007 0.048 0.006 0.008

(e) Drawing spent soap solutions.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals drawn with soap solutions	
Cadmium	0.001 0.006 0.0009 0.002	0.0005 0.003 0.0004 0.0006

(f) Metal powder production atomization wastewater.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals powder wet atomized	
Cadmium Copper Cyanide Silver	2.27 12.7 1.94 2.74	1.00 6.68 0.802 1.14

(g) Heat treatment contact cooling water.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals heat treated	
Cadmium Copper Cyanide Silver	0.142 0.793 0.121 0.171	0.063 0.417 0.050 0.071

(h) Semi-continuous and continuous casting contact cooling water.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals cast by the semi-continuous or contin- uous method	
Cadmium	0.350 1.96 0.299 0.423	0.155 1.03 0.124 0.175

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- (i) Stationary casting contact cooling water—Subpart D—PSES. There shall be no discharge of process wastewater pollutants.
- (j) Direct chill casting contact cooling water.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals cast by the direct chill method	
Cadmium	0.367 2.05	0.162 1.08
Cyanide	0.313	0.130
Silver	0.443	0.184

(k) Shot casting contact cooling water.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals shot cast	
Cadmium	0.125 0.698	0.055 0.367
Cyanide	0.107 0.151	0.044 0.063

- (l) Wet air pollution control scrubber blowdown—Subpart D—PSES. There shall be no discharge of process wastewater pollutants.
- (m) Pressure bonding contact cooling water.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metal and base metal pressure bonded	
Cadmium	0.029 0.159	0.013 0.084
Cyanide	0.024 0.034	0.010 0.014

(n) Surface treatment spent baths.

SUBPART D-PSES Maximum for Maximum for Pollutant or pollutant property monthly aver-age any 1 day mg/off-kg (pounds per mil-lion off-pounds) of pre-cious metals surface treat-0.033 0.015 Cadmium 0.183 0.097 Copper 0.028 0.040 Cyanide 0.012 0.017 Silver

(o) Surface treatment rinse.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals surface treat- ed	
Cadmium	0.210 1.17 0.179 0.253	0.093 0.616 0.074 0.105

(p) Alkaline cleaning spent baths.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of pre- als alkaline
Cadmium Copper Cyanide Silver	0.021 0.114 0.018 0.025	0.009 0.060 0.007 0.010

$\ \, {\rm (q)}\,\, {\it Alkaline}\,\, {\it cleaning}\,\, {\it rinse}.$

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of pre cious metals alkaline cleaned	
Cadmium	0.381 2.13 0.325 0.459	0.168 1.12 0.135 0.191

(r) Alkaline cleaning prebonding wastewater.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals and base metal cleaned prior to bonding	
Cadmium	0.400 2.210 0.337 0.476	0.174 1.16 0.139 0.197

(s) Tumbling or burnishing wastewater.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals tumbled or burnished	
Cadmium	0.412 2.300 0.351 0.496	0.182 1.21 0.145 0.206

- (t) Sawing or grinding spent neat oils—Subpart D—PSES. There shall be no discharge of process wastewater pollutants
 - (u) Sawing or grinding spent emulsions.

SUBPART D-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals sawed or ground with emulsions	
Cadmium	0.032 0.178 0.027 0.038	0.014 0.094 0.011 0.016

(v) Degreasing spent solvents—Subpart D—PSNS. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2886, Jan. 22, 1986]

§471.45 Pretreatment standards for new sources (PSNS).

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must

comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources (PSNS). The mass of wastewater pollutants in precious metals forming wastewater introduced into a POTW shall not exceed the following values:

(a) Rolling spent neat oils—Subpart D—PSNS. There shall be no discharge of process wastewater pollutants.

(b) Rolling spent emulsions.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals rolled with emulsions	
Cadmium	0.026 0.147 0.023 0.032	0.012 0.077 0.010 0.013

(c) Drawing spent neat oils—Subpart D—PSNS. There shall be no discharge of process wastewater pollutants.

(d) Drawing spent emulsions.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals drawn with emulsions	
Cadmium Copper Cyanide Silver	0.016 0.091 0.014 0.020	0.007 0.048 0.006 0.008

(e) Drawing spent soap solutions.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals drawn with soap solutions	
Cadmium Copper Cyanide Silver	0.001 0.006 0.0009 0.002	0.0005 0.003 0.0004 0.0006

(f) Metal powder production wet atomization wastewater.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals powder wet atomized	
Cadmium	2.27 12.7	1.00 6.68
Cyanide	1.94 2.74	0.802 1.14

(g) Heat treatment contact cooling water.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of ex- tended precious metals heat treated	
Cadmium	0.142	0.063
Copper	0.793	0.417
Cyanide	0.121	0.050
Silver	0.171	0.071

(h) Semi-continuous and continuous casting contact cooling water.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals cast by the semi-continuous or contin- uous method	
Cadmium	0.350 1.96 0.299 0.423	0.155 1.03 0.124 0.175

- (i) Stationary casting contact cooling water—Subpart D—PSNS. There shall be no discharge of process wastewater pollutants.
- (j) Direct chill casting contact cooling water.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals cast by the direct chill method	
Cadmium	0.367 2.05 0.313	0.162 1.08 0.130
Silver	0.443	0.184

(k) Shot casting contact cooling water.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals shot cast	
Cadmium	0.125	0.055
Copper	0.698	0.367
Cyanide	0.107	0.044
Silver	0.151	0.0631

- (l) Wet air pollution control scrubber blowdown—Subpart D—PSNS. There shall be no discharge of process wastewater pollutants.
- (m) Pressure bonding contact cooling water.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals and base metal pressure bonded	
Cadmium	0.029	0.013
Copper	0.159	0.084
Cyanide	0.024	0.010
Silver	0.034	0.014

(n) Surface treatment spent baths.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals surface treat- ed	
Cadmium Copper Cyanide Silver	0.033 0.183 0.028 0.040	0.015 0.097 0.012 0.017

(o) Surface treatment rinse.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals surface treat- ed	
Cadmium Copper Cyanide Silver	0.210 1.17 0.179 0.253	0.093 0.616 0.074 0.105

(p) Alkaline cleaning spent baths.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals alkaline cleaned	
Cadmium	0.021 0.114 0.018 0.025	0.009 0.060 0.007 0.010

(q) Alkaline cleaning rinse.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of pre- als alkaline
Cadmium Copper Cyanide Silver	0.381 2.13 0.325 0.459	0.168 1.12 0.135 0.191

(r) Alkaline cleaning pre-bonding wastewater.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals and base metal cleaned prior to bonding	
Cadmium	0.400 2.21 0.337 0.476	0.174 1.16 0.139 0.197

(s) Tumbling or burnishing wastewater.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pre- cious metals tumbled or burnished	
Cadmium	0.412 2.30	0.182 1.21
Cyanide	0.351	0.145
Silver	0.496	0.206

- (t) Sawing or grinding spent neat oils—Subpart D—PSNS. There shall be no discharge of process wastewater pollutants.
 - (u) Sawing or grinding spent emulsions.

SUBPART D-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	precious m	oounds per pounds) of etals sawed with emul-
Cadmium	0.032 0.178	0.014 0.094
Cyanide	0.027	0.011
Silver	0.038	0.016

(v) Degreasing spent solvents—Subpart D—PSNS. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2886, Jan. 22, 1986]

§471.46 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart E—Refractory Metals Forming Subcategory

§ 471.50 Applicability; description of the refractory metals forming subcategory.

This subpart applies to discharges of pollutants to waters of the United States, and introductions of pollutants into publicly owned treatment works from the process operations of the refractory metals forming subcategory.

§ 471.51 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations for the process operations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

(a) Rolling spent neat oils and graphite based lubricants—Subpart E—BPT. There shall be no discharge of process wastewater pollutants.

(b) Rolling spent emulsions.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of refrac tory metals rolled with emulsions	
Copper	0.815 0.824 25.5 2.84 8.58	0.429 0.545 11.3 1.47 5.15
TSS	17.6 (1)	8.37 (1)

¹ Within the range of 7.5 to 10.0 at all times.

(c) Drawing spent lubricants—Subpart E—BPT. There shall be no discharge of process wastewater pollutants.

- (d) Extrusion spent lubricants—Subpart E—BPT. There shall be no discharge of process wastewater pollutants.
- (e) Extrusion press hydraulic fluid leakage.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of refrac tory metals extruded	
Copper	2.26	1.19
Nickel	2.29	1.51
Fluoride	70.8	31.4
Molybdenum	7.87	4.07
Oil and grease	23.8	14.3
TSS	48.8	23.2
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (f) Forging spent lubricants—Subpart E—BPT. There shall be no discharge of process wastewater pollutants.
 - (g) Forging contact cooling water.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of forged netals cooled
Copper	0.614 0.620 19.2 2.14 6.46 13.3	0.323 0.410 8.53 1.11 3.88 6.30

¹ Within the range of 7.5 to 10.0 at all times.

(h) Equipment cleaning wastewater.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals formed	
Copper	2.59 2.61 80.9 8.99 27.2 55.8	1.36 1.73 35.9 4.65 16.3 26.5
Oil and grease	27.2	16

¹ Within the range of 7.5 to 10.0 at all times.

(i) Metal powder production wastewater.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		unds per mil- ids) of refrac- powder pro-
Copper	0.534	0.281
Nickel	0.540	0.357
Fluoride	16.70	7.42
Molybdenum	1.86	0.961
Oil and grease	5.62	3.37
TSS	11.5	5.48
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (j) Metal powder production floor wash wastewater—Subpart E—BPT. There shall be no discharge of process wastewater pollutants.
- (k) Metal powder pressing spent lubricants—Subpart E—BPT. There shall be no discharge of process wastewater pollutants.

(l) Surface treatment spent baths.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals surface treat- ed	
Copper	0.739	0.389
Nickel	0.747	0.494
Fluoride	23.2	10.3
Molybdenum	2.57	1.33
Oil and grease	7.78	4.68
TSS	16.0	7.59
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(m) Surface treatment rinse.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (p million off- refractory face treated	pounds) of metals sur-
Copper	230	121
Nickel	232	154
Fluoride	7,200	3,200
Molybdenum	800	414
Oil and grease	2,420	1,450
TSS	4,960	2,360
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(n) Alkaline cleaning spent baths.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of refrac- ils alkaline
Copper	0.635 0.641 19.9 2.21 6.68	0.334 0.424 8.82 1.14 4.01
TSS	13.7	6.51
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(o) Alkaline cleaning rinse.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals alka- line cleaned	
Copper	1,550	816
Nickel	1,570	1,040
Fluoride	48,600	21,600
Molybdenum	5,400	2,790
Oil and grease	16,300	9,790
TSS	33,500	15,900
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(p) Molten salt rinse.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of refrac- treated with
Copper	12.1	6.33
Nickel	12.2	8.04
Fluoride	377	167
Molybdenum	41.9	21.7
Oil and grease	127	76.0
TSS	260	124
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(q) Tumbling or burnishing wastewater.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of refrac- tumbled or
Copper	23.8	12.5
Nickel	24.0	15.9
Fluoride	744	330
Molybdenum	82.7	42.8
Oil and grease	250	150
TSS	513	244
pH	(1)	(¹)

Within the range of 7.5 to 10.0 at all times.

- (r) Sawing or grinding spent neat oils—Subpart E—BPT. There shall be no discharge of process wastewater pollutants
 - $(s) \ \textit{Sawing or grinding spent emulsions}.$

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals sawed or ground with emulsions	
Copper	0.565	0.297
Nickel	0.570	0.377
Fluoride	17.7	7.84
Molybdenum	1.97	1.02
Oil and grease	5.94	3.57
TSS	12.2	5.79
pH	(1)	(¹)

 $^{^{\}mbox{\scriptsize 1}}\mbox{\ensuremath{\mbox{Within}}}$ the range of 7.5 to 10.0 at all times.

(t) Sawing or grinding contact cooling water.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals sawed or ground with contact cool- ing water	
Copper	46.2	24.3
Nickel	46.7	30.9
Fluoride	1450	642
Molybdenum	161	83.1
Oil and grease	486	292
TSS	997	474
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(u) Sawing or grinding rinse.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of sawed efractory met-
Copper	0.257 0.259 8.03 0.893 2.70 5.54	0.135 0.172 3.57 0.462 1.62 2.63
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(v) Wet air pollution control scrubber blowdown.

SUBPART E-BPT

Maximum for any 1 day			
Section Sect	Pollutant or pollutant property		monthly aver-
Nickel 1.51 1.00 Fluoride 46.8 20.8 Molybdenum 5.20 2.69 Oil and grease 15.8 9.45		lion off-poun tory metals ground, surfa	ds) of refrac- sawed or ace coated or
Fluoride 46.8 20.8 Molybdenum 5.20 2.69 Oil and grease 15.8 9.45	Copper	1.50	0.787
Molybdenum 5.20 2.69 Oil and grease 15.8 9.45	Nickel	1.51	1.00
Oil and grease	Fluoride	46.8	20.8
	Molybdenum	5.20	2.69
TSS	Oil and grease	15.8	9.45
	TSS	32.3	15.4
pH (¹)	pH	(¹)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(w) Miscellaneous wastewater sources.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals formed	
Copper Nickel Nickel Nolybdenum Nickel Nolybdenum Nolyb	0.656 0.663 20.6 2.28 6.9 14.2	0.345 0.438 9.11 1.18 4.14 6.73

¹ Within the range of 7.5 to 10.0 at all times.

(x) Dye penetrant testing wastewater.

SUBPART E-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals tested	
Copper	0.150 0.150 4.60 0.513 1.60 3.20	0.078 0.099 2.00 0.266 0.930 1.50
pH	(1)	(1)

 $^{^{\}mbox{\tiny 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$

(y) *Degreasing spent solvents—Subpart E—BPT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2886, Jan. 22, 1986]

§ 471.52 Effluent limitations representating the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

- (a) Rolling spent neat oils and graphite based lubricants—Subpart E—BAT. There shall be no discharge of process wastewater pollutants.
 - (b) Rolling spent emulsions.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals rolled with emulsions	
Copper	0.549 0.236	0.262 0.157
Fluoride	25.5 2.16	11.3 0.957

- (c) *Drawing spent lubricants—Subpart E—BAT*. There shall be no discharge of process wastewater pollutants.
- (d) Extrusion spent lubricants—Subpart E—BAT. There shall be no discharge of process wastewater pollutants.
- (e) Extrusion press hydraulic fluid leakage.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals extruded	
Copper	1.5 0.650 71.000 5.99	0.730 0.440 31.0 2.66

- (f) Forging spent lubricants—Subpart E—BAT. There shall be no discharge of process wastewater pollutants.
 - (g) Forging contact cooling water.

SUBPART E-BAT

Maximum for any 1 day	Maximum for monthly average
mg/off-kg (pounds per mi lion off-pounds) of forge refractory metals coole with water	
0.041	0.020
0.018	0.012
1.92	0.853
0.163	0.072
	mg/off-kg (poulion off-poun refractory m with water

(h) Equipment cleaning wastewater.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals formed	
Copper	0.174 0.075 8.09 0.684	0.083 0.051 3.59 0.303

(i) Metal powder production wastewater.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals powder pro- duced	
Copper	0.360 0.155	0.172 0.104
Fluoride	16.7	7.42
Molybdenum	1.42	0.627

- (j) Metal powder production floor wash wastewater—Subpart E—BAT. There shall be no discharge of process wastewater pollutants.
- (k) Metal powder pressing spent lubricants—Subpart E—BAT. There shall be no discharge of process wastewater pollutants
 - (1) Surface treatment spent baths.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mi lion off-pounds) of refrac tory metals surface trea ed	
Copper	0.498	0.237
Nickel	0.214	0.144
Fluoride	23.2	10.3
Molybdenum	1.96	0.868

(m) Surface treatment rinse.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals surface treat- ed	
Copper	15.5 6.66 720 60.9	7.38 4.48 320 27.0

(n) Alkaline cleaning spent baths.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals alkaline cleaned	
Copper Nickel	0.428 0.184 19.9	0.204 0.124 8.82
Molybdenum	1.68	0.745

(o) Alkaline cleaning rinse.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals alkaline cleaned	
Copper	10.5 4.49 486 41.1	4.98 3.02 216 18.2

(p) Molten salt rinse.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals treated with molten salt	
Copper Nickel Fluoride Molybdenum	0.810 0.348 37.7 3.19	0.386 0.234 16.7 1.41

(q) Tumbling or burnishing wastewater.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals tumbled or burnished	
Copper	1.60 0.688 74.4 6.29	0.763 0.463 33.0 2.79

- (r) Sawing or grinding spent neat oils—Subpart E—BAT. There shall be no discharge of process wastewater pollutants.
 - (s) Sawing or grinding spent emulsions.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals sawed or ground with emulsions	
Copper	0.380 0.164 17.7 1.50	0.181 0.110 7.84 0.663

(t) Sawing or grinding contact cooling water.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals sawed or ground with contact cool- ing water	
Copper	3.11 1.34	1.48 0.899
Fluoride	145.0	64.2
Molybdenum	12.2	5.42

(u) Sawing or grinding rinse.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of sawed or ground refractory met- als rinsed	
Copper Nickel Fluoride Molybdenum	0.018 0.008 0.803 0.068	0.009 0.005 0.357 0.030

$\begin{tabular}{ll} (v) & Wet & air & pollution & control & scrubber \\ blowdown. \end{tabular}$

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver-
	1	age
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals sawed, sur- face coated or surface treated	
Copper Nickel Fluoride	1.01 0.433 46.8	0.480 0.291 20.8
Molybdenum	3.96	1.76

(w) Miscellaneous wastewater sources.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals formed	
Copper	0.442 0.190 20.6 1.74	0.211 0.128 9.11 0.770

(x) Dye penetrant testing wastewater.

SUBPART E-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals product tested	
Copper	0.100 0.043 4.62 0.391	0.048 0.029 2.05 0.173

(y) *Degreasing spent solvents—Subpart E—BAT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2886, Jan. 22, 1986]

§ 471.53 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

- (a) Rolling spent neat oils and graphite based lubricants—Subpart E—NSPS. There shall be no discharge of process wastewater pollutants.
 - (b) Rolling spent emulsions.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of refrac- rolled with
Copper	0.549 0.236 25.5 2.16	0.262 0.159 11.3 0.957
Oil and grease	4.29	4.29
TSS	6.44	5.15
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (c) *Drawing spent lubricants.—Subpart E—NSPS.* There shall be no discharge of process wastewater pollutants.
- (d) Extrusion spent lubricants.—Subpart E—NSPS. There shall be no discharge of process wastewater pollutants.
- (e) Extrusion press hydraulic fluid leakage.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (poul lion off-pounl tory metals e	ds) of refrac-
Copper	1.53 0.655 70.8 5.99 11.9 17.9	0.726 0.441 31.4 2.66 11.9 14.3
pH	(¹)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(f) Forging spent lubricants—Subpart E—NSPS. There shall be no discharge of process wastewater pollutants.

(g) Forging contact cooling water.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of forged refractory metals cooled with water	
Copper	0.041	0.020
Nickel	0.018	0.012
Fluoride	1.92	0.853
Molybdenum	0.163	0.072
Oil and grease	0.323	0.323
TSS	0.485	0.388
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(h) Equipment cleaning wastewater.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (poulion off-pound tory metals for	ds) of refrac-
Copper	0.174 0.075 8.09 0.684 1.36 2.04	0.083 0.051 3.59 0.303 1.36 1.63 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

(i) Metal powder production wastewater.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of refrac- powder pro-
Copper	0.360 0.155 16.7 1.42 2.81 4.22	0.172 0.104 7.42 0.627 2.81 3.37

¹ Within the range of 7.5 to 10.0 at all times.

(j) Metal powder production floor wash wastewater—Subpart E—NSPS. There

shall be no discharge of process

wastewater pollutants.
(k) Metal powder pressing spent lubricants—Subpart E—NSPS. There shall be no discharge of process wastewater pol-

(l) Surface treatment spent baths.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals surface treat- ed	
Copper	0.498	0.237
Nickel	0.214	0.144
Fluoride	23.2	10.3
Molybdenum	1.96	0.868
Oil and grease	3.89	3.89
TSS	5.84	4.67
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(m) Surface treatment rinse.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of refrac- surface treat-
Copper	15.5 6.66 720 69.9 121 182 (¹)	7.38 4.48 320 27.0 121 145 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

(n) Alkaline cleaning spent baths.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals alkaline cleaned	
Copper	0.428	0.204
Nickel	.184	0.124
Fluoride	19.9	8.82
Molybdenum	1.68	0.745
Oil and grease	3.34	3.34
TSS	5.01	4.01
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(o) Alkaline cleaning rinse.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals alkaline cleaned	
Copper	10.5	4.98
Nickel	4.49	3.02
Fluoride	486	216
Molybdenum	41.1	18.2
Oil and grease	81.6	81.6
TSS	123	97.9
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(p) Molten salt rinse.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of refrac- treated with
Copper	0.810 0.348 37.7 3.19 6.33 9.5	0.386 0.234 16.7 1.41 6.33 7.6 (1)

¹ Within the range of 7.5 to 10.0 at all times.

(q) Tumbling or burnishing wastewater.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		unds per mil- ids) of refrac- tumbled or
Copper	1.60	0.763
Nickel	0.688	0.463
Fluoride	74.4	33.0
Molybdenum	6.29	2.79
Oil and grease	12.5	12.5
TSS	18.8	15.0
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (r) Sawing or grinding spent neat oils—Subpart E—NSPS. There shall be no discharge of process wastewater pollut-
 - (s) Sawing or grinding spent emulsions.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals sawed or ground with emulsions	
Copper	0.380	0.181
Nickel	0.164	0.110
Fluoride	17.7	7.84
Molybdenum	1.5	0.663
Oil and grease	2.97	2.97
TSS	4.46	3.57
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(t) Sawing or grinding contact cooling water.

SUBPART E-NSPS

005.7 2		
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	tory metals	unds per mil- ds) of refrac- s sawed or contact cool-
Copper	3.11	1.48
Nickel	1.34	0.899
Fluoride	145	64.2
Molybdenum	12.2	5.42
Oil and grease	24.3	24.3
TSS	36.5	29.2
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(u) Sawing or grinding rinse.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		unds per mil- ids) of sawed efractory met-
Copper	0.018	0.009
Nickel	0.008	0.005
Fluoride	0.803	0.357
Molybdenum	0.068	0.030
Oil and grease	0.135	0.135
TSS	0.203	0.162
pH	(¹)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(v) Wet air pollution control scrubber blowdown.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals sawed, ground, surface coated or surface treated	
Copper	1.01	0.480
Nickel	0.433	0.291
Fluoride	46.8	20.8
Molybdenum	3.96	1.76
Oil and grease	7.87	7.87
TSS	11.8	9.45
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(w) Miscellaneous wastewater sources.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mi lion off-pounds) of refrac tory metals formed	
Copper	0.442	0.211
Nickel	0.190	0.128
Fluoride	20.6	9.11
Molybdenum	1.74	0.770
Oil and grease	3.45	3.45
TSS	5.18	4.14
pH	(¹)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(x) Dye penetrant testing wastewater.

SUBPART E-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of refrac tory metals product tested	
Copper	0.100	0.048
Nickel	0.043	0.029
Fluoride	4.62	2.05
Molybdenum	0.391	0.173
Oil and grease	0.776	0.776
TSS	1.17	0.931
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(y) Degreasing spent solvents—Subpart E—NSPS. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2886, Jan. 22, 1986]

§471.54 Pretreatment standards for existing sources (PSES).

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and by August 23, 1988 achieve the following pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in refractory metals forming process wastewater introduced into a POTW shall not exceed the following values:

- (a) Rolling spent neat oils and graphite based lubricants—Subpart E—PSES. There shall be no discharge of process wastewater pollutants.
 - (b) Rolling spent emulsions.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals rolled with emulsions	
Copper	0.815 0.824 25.5 2.84	0.429 0.545 11.4 1.47

- (c) *Drawing spent lubricants—Subpart E—PSES.* There shall be no discharge of process wastewater pollutants.
- (d) Extrusion spent lubricants—Subpart E—PSES. There shall be no discharge of process wastewater pollutants.
- (e) Extrusion press hydraulic fluid leakage.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals extruded	
Copper	2.26 2.29 70.8 7.87	1.19 1.51 31.4 4.07

(f) Forging spent lubricants—Subpart E—PSES. There shall be no discharge of process wastewater pollutants.

(g) Forging contact cooling water.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pound refractory m with water	ds) of forged
Copper Nickel Fluoride Molybdenum	0.062 0.062 1.92 0.214	0.033 0.041 0.853 0.111
	1	1

(h) Equipment cleaning wastewater.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals formed	
Copper Nickel Fluoride Molybdenum	0.259 0.261 8.09 0.899	0.136 0.173 3.59 0.465

(i) Metal powder production wastewater.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of refrac- powder pro-
Copper	0.534 0.540 16.7 1.86	0.281 0.357 7.42 0.961

- (j) Metal powder production floor wash wastewater—Subpart E—PSES. There shall be no discharge of process wastewater pollutants.
- (k) Metal powder pressing spent lubricants—Subpart E—PSES. There shall be no discharge of process wastewater pollutants.
- (l) Surface treatment spent baths.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals surface treat- ed	
Copper	0.739 0.747 23.2 2.57	0.389 0.494 10.3 1.33

(m) Surface treatment rinse.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals surface treat- ed	
Copper	23.0 23.3 720 80.0	12.1 15.4 320 41.4

(n) Alkaline cleaning spent baths.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals alkaline cleaned	
Copper	0.635 0.642 19.9 2.21	0.334 0.424 8.82 1.14

(o) Alkaline cleaning rinse.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of refrac tory metals alkaling cleaned	
Copper	15.5 15.7 486. 54.0	8.16 10.4 216.0 27.9

(p) Molten salt rinse.

SUBPART E-PSES

Maximum for any 1 day	Maximum for monthly average
mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals treated with molten salt	
1.20 1.22 37.7 4.19	0.633 0.804 16.7 2.17
	mg/off-kg (poulion off-pountory metals molten salt

(q) Tumbling or burnishing wastewater.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals tumbled or burnished	
Copper	2.38 2.40	1.25 1.59
Fluoride	74.4	33.0
Molybdenum	8.27	4.28

- (r) Sawing or grinding spent neat oils—Subpart E—PSES. There shall be no discharge of process wastewater pollut-
 - (s) Sawing or grinding spent emulsions.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals sawed or ground with emulsions	
Copper	0.565	0.297
Nickel	0.570	0.377
Fluoride	17.7	7.84
Molybdenum	1.97	1.02

(t) Sawing or grinding contact cooling water.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals sawed or ground with contact cool- ing water	
Copper	4.62 4.67 145. 16.1	2.43 3.09 64.2 8.31

(u) Sawing or grinding rinse.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of sawed or ground refractory met- als rinsed	
Copper	0.026 0.026 0.804 0.089	0.014 0.017 0.357 0.046

$(v) \ \textit{Wet air pollution control blowdown}.$

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals sawed, sur- face coated or surface treated	
Copper	1.50 1.51 46.9 5.20	0.787 1.00 20.8 2.69

(w) Miscellaneous wastewater sources.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals formed	
Copper	0.656 0.663 20.6 2.28	0.345 0.438 9.11 1.18

(x) Dye penetrant testing wastewater.

SUBPART E-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals product tested	
Copper Nickel Fluoride Molybdenum	0.148 0.149 4.62 0.513	0.078 0.099 2.05 0.266

(y) Degreasing spent solvents—Subpart E—PSES. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

§ 471.55 Pretreatment standards for new sources (PSNS).

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources (PSNS). The mass of wastewater pollutants in the refractory metals forming process wastewater shall not exceed the values set forth below:

(a) Rolling spent neat oils and graphite based lubricants—Subpart E—PSNS. There shall be no discharge of process wastewater pollutants.

(b) Rolling spent emulsions.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals rolled with emulsions	
Copper	0.549 0.236 25.5 2.16	0.262 0.159 11.3 0.957
- Inolybacham	2.10	0.50

- (c) *Drawing spent lubricants—Subpart E—PSNS*. There shall be no discharge of process wastewater pollutants.
- (d) Extrusion spent lubricants—Subpart E—NSPS. There shall be no discharge of process wastewater pollutants.
- (e) Extrusion press hydraulic fluid leakage.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals extruded	
Copper	1.53 0.655 70.8 5.99	0.726 0.441 31.4 2.66

(f) Forging spent lubricants—Subpart E—PSNS. There shall be no discharge of process wastewater pollutants.

(g) Forging contact cooling water.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of forged refractory metals cooled with water	
Copper	0.041 0.018 1.92 0.163	0.320 0.021 0.853 0.072

(h) Equipment cleaning wastewater.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals formed	
Copper	0.174 0.075 8.09 0.684	0.083 0.051 3.59 0.303

(i) Metal powder production wastewater.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals powder pro- duced	
Copper	0.360 0.155 16.7 1.42	0.172 0.104 7.42 0.627

- (j) Metal powder production floor wash wastewater—Subpart E—PSNS. There shall be no discharge of process wastewater pollutants.
- (k) Metal powder pressing spent lubricants—Subpart E—PSNS. There shall be no discharge of process wastewater pollutants

(l) Surface treatment spent baths.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals surface treat- ed	
Copper	0.498	0.237
Nickel	0.214	0.144
Fluoride	23.2	10.3
Molybdenum	1.96	0.868

(m) Surface treatment rinse.

SUBPART E—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals surface treat- ed	
Copper	15.5 6.66 720 60.9	7.38 4.48 320 27.0

(n) Alkaline cleaning spent baths.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals alkaline cleaned	
Copper	0.428	0.204
Nickel	0.184	0.124
Fluoride	19.9	8.82
Molybdenum	1.68	0.745

(o) Alkaline cleaning rinse.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals alkaline cleaned	
Copper	10.5 4.49 48.6 41.1	4.98 3.02 216 18.2

(p) Molten salt rinse.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals treated with molten salt	
Copper	0.810 0.348 37.7 3.19	0.386 0.234 16.7 1.41

(q) Tumbling or burnishing wastewater.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals tumbled or burnished	
Copper	1.60 0.688 74.4 6.29	0.763 0.463 33.0 2.79

- (r) Sawing or grinding spent neat oils—Subpart E—PSNS. There shall be no discharge or process wastewater pollutants.
 - (s) Sawing or grinding spent emulsions.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals sawed or ground with emulsions	
CopperNickel	0.380 0.164	0.181 0.110
Fluoride Molybdenum	17.7 1.50	7.84 0.663

(t) Sawing or grinding contact cooling water.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals sawed or ground with contact cool- ing water	
Copper	3.11 1.34 145 12.2	1.48 0.899 64.2 5.42

(u) Sawing or grinding rinse.

SUBPART E-PSNS

Maximum for any 1 day	Maximum for monthly average
mg/off-kg (pounds per mil- lion off-pounds) of sawed or ground refractory met- als rinsed	
0.018	0.009
0.008	0.005
0.803	0.357
0.068	0.030
	mg/off-kg (poulion off-poun or ground reals rinsed

(v) Wet air pollution control blowdown.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals sawed, ground, surface coated or surface treated	
Copper	1.01 0.433 46.8 3.96	0.480 0.291 20.8 1.76

(w) Miscellaneous wastewater source.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of refrac- tory metals formed	
Copper	0.442 0.192 20.6 1.74	0.211 0.128 9.11 0.770

(x) Dye penetrant testing wastewater.

SUBPART E-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of refractory metals prod- uct tested	
Copper	0.100 0.043 4.62 0.391	0.048 0.029 2.05 0.173

(y) *Degreasing spend solvents—Subpart E—PSNS*. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

§471.56 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart F—Titanium Forming Subcategory

§471.60 Applicability; description of the titanium forming subcategory.

This subpart applies to discharges of pollutants to waters of the United States, and introductions of pollutants into publicly owned treatment works from the process operations of the titanium forming subcategory.

§471.61 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations for the process operations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

(a) Rolling spent neat oils.—Subpart F—BPT. There shall be no discharge of process wastewater pollutants.

(b) Rolling contact cooling water.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium rolled with contact cooling water	
Cyanide	1.4 2.05 7.13 651 291 97.0 200.0	0.586 0.976 2.98 286 129 58.0 95.0

¹ Within the range of 7.5 to 10.0 at all times.

(c) *Drawing spent neat oils—Subpart F—BPT.* There shall be no discharge of process wastewater pollutants.

(d) Extrusion spent neat oils—Subpart F—BPT. There shall be no discharge of process wastewater pollutants.

(e) Extrusion spent emulsions.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (poulion off-poul	nds) of tita-
Cyanide Lead Zinc Ammonia Fluoride Oil and grease TSS pH	0.021 0.030 0.105 9.59 4.28 1.44 2.95	0.009 0.015 0.044 4.22 1.9 0.863 1.4

¹ Within the range of 7.5 to 10.0 at all times.

(f) Extrusion press hydraulic fluid leakage.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (poulion off-poul	nds) of tita-
Cyanide Lead Zinc Ammonia Fluoride Oil and grease TSS pH	0.052 0.075 0.260 23.7 10.6 3.56 7.30	0.022 0.036 0.109 10.5 4.70 2.14 3.47

¹Within the range of 7.5 to 10.0 at all times.

(g) Forging spent lubricants—Subpart F—BPT. There shall be no discharge of process wastewater pollutants.

(h) Forging contact cooling water.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of forged ed with water
Cyanide	0.580 0.840 2.92 267 119 40.0 82.0	0.240 0.400 1.22 117 52.8 24.0 39.0

¹ Within the range of 7.5 to 10.0 at all times.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poun tory metals fo	ds) of refrac-
Cyanide Lead Zinc Ammonia Fluoride	0.012 0.017 0.059 5.33 2.38	0.005 0.008 0.025 2.35 1.06
Oil and grease	0.800 1.64	0.480 0.780
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(j) Forging press hydraulic fluid leakage.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of refrac tory metals forged	
Cyanide	0.293	0.121
Lead	0.424	0.202
Zinc	1.48	0.616
Ammonia	135	59.2
Fluoride	60.1	26.7
Oil and grease	20.2	12.1
TSS	41.4	19.7
pH	(¹)	(¹)

¹Within the range of 7.5 to 10.0 at all times.

- (k) Tube reducing spent lubricants— Subpart F—BPT. There shall be no discharge of process wastewater pollutants.
- (l) Heat treatment contact cooling water—Subpart F—BPT. There shall be no allowance for the discharge of process wastewater pollutants.
 - (m) Surface treatment spent baths.

⁽i) Forging equipment cleaning wastewater.

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§ 471.61

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (poul lion off-poul nium surface	nds) of tita-
Cyanide	0.061 0.088 0.304 27.7 12.4 4.16	0.025 0.042 0.127 12.2 5.49 2.50
TSSpH	8.53 (1)	4.06 (1)

¹ Within the range of 7.5 to 10.0 at all times.

(n) Surface treatment rinse.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium surface	nds) of tita-
Cyanide	8.47 12.3 42.7 3,890 1,740	3.51 5.84 17.8 1,710 771
Oil and grease	584	351
TSS	1,200 (¹)	570 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

(o) Wet air pollution control scrubber blowdown.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of tita- e treated or
Cyanide	0.621	0.257
Lead	0.899	0.428
Zinc	3.13	1.31
Ammonia	285	126
Fluoride	128	56.5
Oil and grease	42.8	25.7
TSS	87.8	41.8
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(p) Alkaline cleaning spent baths.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium alkaline	nds) of tita-
Cyanide	0.070	0.029
Lead	0.101	0.048
Zinc	0.351	0.147
Ammonia	32.0	14.1
Fluoride	14.3	6.34
Oil and grease	4.80	2.88
TSS	9.84	4.68
pH	(¹)	(1)

¹Within the range of 7.5 to 10.0 at all times.

(q) Alkaline cleaning rinse.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	mg/off-kg (pou lion off-pou nium alkaline	nds) of tita-
Cyanide	0.801 1.16	0.331 0.552
Zinc	4.03	1.69
Ammonia	370	160
Fluoride	164	72.9
Oil and grease	55.2	33.1
TSS	113	53.8
pH	(¹)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(r) Molten salt rinse.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium treated with molten salt	
Cyanide	0.277 0.401	0.115 0.191
Zinc	1.40	0.583
Ammonia	128	56.0
Fluoride	56.8	25.2
Oil and grease	19.1	11.5
TSS	39.2	18.6
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(s) Tumbling wastewater.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium tumbled	
Cyanide Lead Zinc Ammonia Fluoride Oil and grease TSS pH	0.229 0.332 1.16 110 47.0 15.8 32.4	0.095 0.158 0.482 46 20.9 9.48 15.4

¹ Within the range of 7.5 to 10.0 at all times.

- (t) Sawing or grinding spent neat oils—Subpart F—BPT. There shall be no discharge of process wastewater pollutants.
- (u) Sawing or grinding of spent emulsions.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium sawed or ground with an emulsion	
Cyanide Lead Zinc Ammonia Fluoride Oil and grease TSS pH	0.053 0.077 0.267 24.4 10.9 3.66 7.51	0.022 0.037 0.112 10.7 4.83 2.20 3.57

¹ Within the range of 7.5 to 10.0 at all times.

(v) Sawing or grinding contact cooling water.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium sawed or ground with contact cooling water	
Cyanide	1.38	0.571
Lead	2.00	0.952
Zinc	6.95	2.91
Ammonia	635	279
Fluoride	283	126
Oil and grease	95.2	57.1
TSS	195	92.8
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(w) Dye penetrant testing wastewater.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium tested with dye pen- etrant methods	
Cyanide Lead Zinc Ammonia Fluoride Oil and grease TSS pH	0.325 0.471 1.64 149 66.7 22.4 45.9	0.135 0.224 0.683 65.7 29.6 13.5 21.9

¹ Within the range of 7.5 to 10.0 at all times.

(x) Miscellaneous wastewater sources.

SUBPART F-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium formed	inds per mil- nds) of tita-
Cyanide Lead Zinc Ammonia Fluoride Oil and grease TSS pH	0.010 0.014 0.048 4.32 1.93 0.648 1.33	0.004 0.007 0.020 1.90 0.856 0.389 0.632 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

(y) *Degreasing spent solvents—Subpart F—BPT*. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

§ 471.62 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

- (a) Rolling spent neat oils—Subpart F—BAT. There shall be no discharge of process wastewater pollutants.
 - (b) Rolling contact cooling water.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium rolled with contact cooling water	
Cyanide Lead Zinc	0.142 0.205 0.713	0.059 0.098 0.298
AmmoniaFluoride	65.1 29.1	28.6 12.90

- (c) Drawing spent neat oils—Subpart F—BAT. There shall be no discharge of process wastewater pollutants.
- (d) Extrusion spent neat oils—Subpart F—BAT. There shall be no discharge of process wastewater pollutants.
 - (e) Extrusion spent lubricants.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of titanium extruded	
Cyanide	0.021	0.009
Lead	0.030	0.015
Zinc	0.105	0.044
Ammonia	9.59	4.22
Fluoride	4.28	1.90

(f) Extrusion press hydraulic fluid leakage.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium extruded	
Cyanide	0.052 0.075 0.260 23.7 10.6	0.022 0.036 0.109 10.5 4.70

- (g) Forging spent lubricants—Subpart F—BAT. There shall be no discharge of process wastewater pollutants.
 - (h) Forging contact cooling water.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of forged titanium cooled with water	
Cyanide	0.029 0.042 0.146 13.3 5.95	0.012 0.020 0.061 5.86 2.64
	1	1

(i) Forging equipment cleaning wastewater.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium forged cyanide	
Cyanide	0.012	0.005
Lead	0.017	0.008
Zinc	0.059	0.025
Ammonia	5.33	2.35
Fluoride	2.38	1.06

(j) Forging press hydraulic fluid leakage.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium forged	
Cyanide	0.293 0.424 1.48 135 60.1	0.121 0.202 0.616 59.2 26.7

- (k) Tube reducing spent lubricants—Subpart F—BAT. There shall be no discharge of process wastewater pollutants
- (l) Heat treatment contact cooling water—Subpart F—BAT. There shall be no discharge allowance for process wastewater pollutants.
 - (m) Surface treatment spent baths.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium surface treated	
Cyanide	0.061 0.088 0.304 27.7 12.4	0.025 0.042 0.127 12.2 5.49

(n) Surface treatment rinse.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium surface treated	
Cyanide	0.847 1.23 4.27 389 174	0.351 0.584 1.78 171 77.1

$\hbox{ (o) Wet air pollutant control scrubber} \\ blowdown.$

SUBPART F-BAT

003.7		
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium surface treated or forged	
Cyanide	0.062 0.090 0.313 28.5 12.8	0.026 0.043 0.131 12.6 5.68

(p) Alkaline cleaning spent baths.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium alkaline cleaned	
Cyanide	0.070 0.101 0.351 32 14.3	0.029 0.048 0.147 14.1 6.34

(q) Akaline cleaning rinse.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium alkaline cleaned	
Cyanide	0.080	0.033
Lead	0.116	0.055
Zinc	0.403	0.169
Ammonia	36.8	16.2
Fluoride	16.4	7.29

(r) Molten salt rinse.

SUBPART F-BAT

Maximum for any 1 day	Maximum for monthly average
mg/off-kg (pounds per mil- lion off-pounds) of tita- nium treated with molten salt	
0.277 0.401 1.40 128 56.8	0.115 0.191 0.583 56 25.2
	mg/off-kg (poulion off-poulion off-poulion treated salt 0.277 0.401 1.40 128

(s) Tumbling wastewater.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium tumbled	
Cyanide	0.022 0.033 0.116 11.0 4.70	0.010 0.016 0.048 4.60 2.09

- (t) Sawing or grinding spent neat oils—Subpart F—BAT. There shall be no discharge of process wastewater pollutants
 - (u) Sawing or grinding spent emulsions.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium sawed or ground with emulsions	
Cyanide	0.053	0.022
Lead	0.077	0.037
Zinc	0.267	0.112
Ammonia	24.4	10.7
Fluoride	10.9	4.83

(v) Sawing or grinding contact cooling water.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) to tita- nium sawed or ground with contact cooling water	
Cyanide	0.138 0.200	0.057 0.095
Zinc	0.200	0.095
Ammonia	63.5	27.9
Fluoride	28.3	12.6

(w) Dye penetrant testing wastewater.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium tested with dye pen- etrant methods	
Cyanide	0.325 0.471 1.64 149 66.7	0.135 0.224 0.683 65.7 29.6

(x) Miscellaneous wastewater sources.

SUBPART F-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium formed	
Cyanide	0.010 0.014 0.048 4.32 1.93	0.004 0.007 0.020 1.90 0.856

(y) *Degreasing spent solvents—Subpart F—BAT.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

§ 471.63 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS). The discharge of wastewater pollutants from titanium process wastewater shall not exceed the values set forth below:

- (a) Rolling spent neat oils—Subpart F—NSPS. There shall be no discharge of process wastewater pollutants.
 - (b) Rolling contact cooling water.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium rolled with contac cooling water	
Overside	0.440	0.050
Cyanide	0.142	0.059
Lead	0.205	0.098
Zinc	0.713	0.298
Ammonia	65.1	28.6
Fluoride	29.1	12.9
Oil and grease	9.76	5.86
TSS	20.0	9.52
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (c) *Drawing spent neat oils—Subpart F—NSPS*. There shall be no discharge of process wastewater pollutants.
- (d) Extrusion spent neat oils—Subpart F—NSPS. There shall be no discharge of process wastewater pollutants.
 - (e) Extrusion spent emulsions.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium extruded	
Cyanide	0.021 0.030 0.105 9.59 4.28 1.44 2.95	0.009 0.015 0.044 4.22 1.9 0.863 1.40
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(f) Extrusion press hydraulic fluid leakage.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium extrude	nds) of tita-
Cyanide Lead	0.052 0.075 0.260 23.7 10.6 3.56 7.30	0.022 0.036 0.109 10.5 4.70 2.14 3.47

¹ Within the range of 7.5 to 10.0 at all times.

(g) Forging spent lubricants—Subpart F—NSPS. There shall be no discharge of process wastewater pollutants.

(h) Forging contact cooling water.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of forged ed with water
Cyanide	0.029 0.0420 0.146 13.3 5.95 2.00 4.10	0.012 0.020 0.061 5.86 2.64 1.20 1.95
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium forged	
Cyanide	0.012 0.017 0.059 5.33 2.38 0.800 1.64	0.005 0.008 0.025 2.35 1.06 0.490 0.780

¹ Within the range of 7.5 to 10.0 at all times.

(j) Forging press hydraulic fluid leakage.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium forged	inds per mil- nds) of tita-
Cyanide	0.293	0.121
Lead	0.424	0.202
Zinc	1.48	0.616
Ammonia	135	59.2
Fluoride	60.1	26.7
Oil and grease	20.2	12.1
TSS	41.4	19.7
pH	(¹)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

- (k) Tube reducing spent lubricants—Subpart F—NSPS. There shall be no discharge of process wastewater pollutants
- (l) Heat treatment contact cooling water—Subpart F—NSPS. There shall be no discharge allowance for the discharge of process wastewater pollutants.
 - (m) Surface treatment spent baths.

⁽i) Forging equipment cleaning wastewater.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium surface	nds) of tita-
Cyanide	0.061 0.088 0.304 27.7 12.4 4.16 8.53	0.025 0.042 0.127 12.2 5.49 2.50 4.06
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(n) Surface treatment rinse.

SUBPART F-NSPS

	I	
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	mg/off-kg (pou lion off-pou nium surface	nds) of tita-
0 11	0.047	0.054
Cyanide	0.847	0.351
Lead	1.23	0.584
Zinc	4.27	1.78
Ammonia	389	171
Fluoride	174	77.1
Oil and grease	58.4	35.1
TSS	120	57.0
pH	(¹)	(1)

 $^{^{\}mbox{\scriptsize 1}}\mbox{Within the range of 7.5 to 10.0 at all times.}$

(o) Wet air pollution control scrubber blowdown.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of tita- e treated or
Cyanide	0.062	0.026
Lead	0.090	0.043
Zinc	0.313	0.131
Ammonia	28.5	12.6
Fluoride	12.8	5.65
Oil and grease	4.28	2.57
TSS	8.78	4.18
pH	(¹)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(p) Alkaline cleaning spent baths.

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SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium alkaline	nds) of tita-
Cyanide	0.070 0.101 0.351 32.0 14.3 4.80 9.84	0.030 0.048 0.147 14.1 6.34 2.88 4.68
pH	9.84 (¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(q) Alkaline cleaning rinse.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium alkaline	nds) of tita-
Cyanide	0.080	0.033
Lead	0.116	0.055
Zinc	0.403	0.169
Ammonia	36.8	16.2
Fluoride	16.4	7.29
Oil and grease	5.52	3.31
TSS	11.3	5.38
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(r) Molten salt rinse.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of tita- I with molten
Cyanide	0.277 0.401	0.115 0.191
Zinc	1.40	0.583
Ammonia	128	56.0
Fluoride	56.8	25.2
Oil and grease	19.1	11.5
TSS	39.2	18.6
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(s) Tumbling wastewater.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium tumbled	
Cyanide	0.023 0.033 0.116 10.6 4.70 1.58 3.24	0.010 0.016 0.048 4.63 2.09 0.948 1.54

¹ Within the range of 7.5 to 10.0 at all times.

- (t) Sawing or grinding spent neat oils—Subpart F—NSPS. There shall be no discharge of process wastewater pollutants.
 - (u) Sawing or grinding spent emulsions.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium sawed or ground with emulsions	
Cyanide	0.053 0.077 0.267 24.4 10.9 3.66 7.51	0.022 0.037 0.112 10.7 4.83 2.20 3.57

¹ Within the range of 7.5 to 10.0 at all times.

(v) Sawing or grinding contact cooling water.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of tita nium sawed or ground with contact cooling water	
Cyanide	0.138	0.057
Lead	0.200	0.095
Zinc	0.695	0.291
Ammonia	63.5	27.9
Fluoride	28.3	12.6
Oil and grease	9.52	5.71
TSS	19.5	9.28
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(w) Dye penetrant testing wastewater.

SUBPART F-NSPS

Maximum for any 1 day	Maximum for monthly average
lion off-pour	nds) of tita- I using dye
0.325 0.471 1.64 149 66.7 22.4 45.9	0.135 0.224 0.683 65.7 29.6 13.5 21.9
	mg/off-kg (poulion off-poulion off-poulion off-poulion inum tested penetrant me 0.325 0.471 1.64 149 66.7 22.4

¹ Within the range of 7.5 to 10.0 at all times.

(x) Miscellaneous wastewater sources.

SUBPART F-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium formed	inds per mil- nds) of tita-
Cyanide	0.010 0.014 0.048 4.32 1.93 0.648 1.33	0.004 0.007 0.020 1.90 0.856 0.389 0.63

¹ Within the range of 7.5 to 10.0 at all times.

(y) *Degreasing spent solvents—Subpart F—NSPS*. There shall be no discharge of process wastewater pollutant.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

§471.64 Pretreatment standards for existing sources (PSES).

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and by August 23, 1988 achieve the following pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in titanium forming process wastewater introduced into a POTW shall not exceed the following values:

- (a) Rolling spent neat oils—Subpart F—PSES. There shall be no discharge of process wastewater pollutants.
 - (b) Rolling contact cooling water.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium rolled with contact cooling water	
Cyanide	0.142	0.059
Lead	0.205	0.098
Zinc	0.713	0.298
Ammonia	65.1	28.6
Fluoride	29.1	12.9

- (c) Drawing spent neat oils—Subpart F—PSES. There shall be no discharge of process wastewater pollutants.
- (d) Extrusion spent neat oils—Subpart F—PSES. There shall be no discharge of process wastewater pollutants.
 - (e) Extrusion spent emulsions.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium extruded	
Cyanide	0.021	0.009
Lead	0.030	0.015
Zinc	0.105	0.044
Ammonia	9.59	4.22
Fluoride	4.28	1.90

(f) Extrusion press hydraulic fluid leakage.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium extrude	nds) of tita-
Cyanide	0.052 0.75 0.260 23.7 10.6	0.022 0.036 0.109 10.5 4.70

- (g) Forging spent lubricants—Subpart F—PSES. There shall be no discharge of process wastewater pollutants.
 - (h) Forging contact cooling water.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of forged ed with water
Cyanide	0.029	0.012
Lead	0.042	0.020
Zinc	0.146	0.061
Ammonia	13.3	5.86
Fluoride	5.95	2.64

(i) Forging equipment cleaning wastewater.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium forged	inds per mil- nds) of tita-
Cyanide	0.012	0.005
Lead	0.017	0.008
Zinc	0.059	0.025
Ammonia	5.33	2.35
Fluoride	2.38	1.06

(j) Forging press hydraulic fluid leakage.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium forged	inds per mil- nds) of tita-
Cyanide	0.293 0.424 1.48 135 60.1	0.121 0.202 0.616 59.2 26.7

- (k) Tube reducing spent lubricants— Subpart F—PSES. There shall be no discharge of process wastewater pollutants.
- (l) Heat treatment contact cooling water—Subpart F—PSES. There shall be no discharge allowance for the discharge of process wastewater pollutants.
 - (m) Surface treatment spent baths.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium surface	nds) of tita-
Cyanide	0.061 0.088 0.304 27.7 12.4	0.025 0.042 0.127 12.2 5.49

(n) Surface treatment rinse.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (poulion off-poul	nds) of tita-
Cyanide	0.847 1.23 4.27 389 174	0.351 0.584 1.78 171 77.1

(o) Wet air pollution control scrubber blowdown.

SUBPART F-PSES

005.7		
Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium surface treated or forged	
Cyanide	0.062 0.090 0.313 28.5 12.8	0.026 0.043 0.131 12.6 5.65

(p) Alkaline cleaning spent baths.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium alkaline	nds) of tita-
Cyanide	0.070 0.101 0.351 32.0 14.3	0.029 0.048 0.147 14.1 6.34

(q) Alkaline cleaning rinse.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium alkaline	nds) of tita-
Cyanide Lead Zinc Ammonia Fluoride	0.080 0.116 0.403 36.8 16.4	0.033 0.055 0.169 16.2 7.29
	10.7	l <u>-</u> 0

(r) Molten salt rinse.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of tita nium treated with molter salt	
Cyanide	0.277 0.401 1.40 128 56.8	0.115 0.191 0.583 56.0 25.2

(s) Tumbling wastewater.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium tumbled	nds) of tita-
Cyanide Lead ZincAmmonia	0.023 0.033 0.116 10.6	0.010 0.016 0.048 4.63
Fluoride	4.70	2.09

- (t) Sawing or grinding spent neat oils—Subpart F—PSES. There shall be no discharge of process wastewater pollutants
 - (u) Sawing or grinding spent emulsions.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium sawed or ground with emulsions	
Cyanide	0.053	0.022
Lead	0.077	0.037
Zinc	0.267	0.112
Ammonia	24.4	10.7
Fluoride	10.9	4.83

(v) Sawing or grinding contact cooling water.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium sawed or ground with contact cooling water	
Cyanide	0.138 0.200 0.695 63.5 28.3	0.057 0.095 0.291 27.9 12.6

$(w) \ \textit{Dye penetrant testing was tewater}.$

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium treated using dye penetrant methods	
Cyanide	0.325 0.471 1.64 149 66.7	0.135 0.224 0.638 65.7 29.6

(x) Miscellaneous wastewater sources.

SUBPART F-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium formed	inds per mil- nds) of tita-
Cyanide	0.010 0.014 0.048 4.32 1.93	0.004 0.007 0.020 1.90 0.856

(y) *Degreasing spent solvents—Subpart F—PSES.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

§ 471.65 Pretreatment standards for new sources (PSNS).

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources (PSNS). The mass of wastewater pollutants in the titanium forming process wastewater shall not exceed the values set forth below:

- (a) *Rolling spent neat oils—Subpart F—PSNS.* There shall be no discharge of process wastewater pollutants.
 - (b) Rolling contact cooling water.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium rolled with contact cooling water	
Cyanide	0.142	0.059
Lead	0.205	0.098
Zinc	0.713	0.298
Ammonia	65.1	28.6
Fluoride	29.1	12.9

- (c) *Drawing spent neat oils—Subpart F—PSNS.* There shall be no discharge of process wastewater pollutants.
- (d) Extrusion spent neat oils—Subpart F—PSNS. There shall be no discharge of process wastewater pollutants.
 - (e) Extrusion spent emulsions.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium extrude	nds) of tita-
Cyanide	0.021 0.030 0.105 9.59 4.28	0.009 0.015 0.044 4.22 1.90

(f) Extrusion press hydraulic fluid leakage.

SUBPART F-PSNS

Maximum for any 1 day	Maximum for monthly average
mg/off-kg (pou lion off-pou nium extrude	nds) of tita-
0.052 0.075 0.260 23.7 10.6	0.022 0.036 0.109 10.5 4.70
	mg/off-kg (poulion off-poulion off-poulion extrude 0.052 0.075 0.260 23.7

- (g) Forging spent lubricants—Subpart F—PSNS. There shall be no discharge of process wastewater pollutants.
 - (h) Forging contact cooling water.

SUBPART F-PSNS

Pollutant or pollutant property Maximum for any 1 day monthly avage mg/off-kg (pounds per milon off-pounds) of forgettanium cooled with water cooled with wa			
Iion off-pounds) of forget titanium cooled with water	Pollutant or pollutant property		Maximum for monthly average
Lead 0.042 0.0 Zinc 0.146 0.0		lion off-poun	ds) of forged
Fluoride	Lead Zinc Ammonia	0.042 0.146 13.3	0.012 0.020 0.061 5.86 2.64

(i) Forging equipment cleaning wastewater.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium forged	inds per mil- nds) of tita-
Cyanide	0.012 0.017 0.059 5.33 2.38	0.005 0.008 0.025 2.35 1.06

(j) Forging press hydraulic fluid leakage.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium forged	inds per mil- nds) of tita-
Cyanide	0.293 0.424 1.48 135 60.1	0.121 0.202 0.616 59.2 26.7

- (k) Tube reducing spent lubricants— Subpart F—PSNS. There shall be no discharge of process wastewater pollutants
- (l) Heat treatment contact cooling water—Subpart F—PSNS. There shall be no discharge allowance for the discharge of process wastewater pollutants.
 - (m) Surface treatment spent baths.

SUBPART F-PSNS

Maximum for any 1 day	Maximum for monthly average
mg/off-kg (pou lion off-pou nium surface	nds) of tita-
0.061 0.088 0.304 27.7	0.025 0.042 0.127 12.2 5.49
	mg/off-kg (poulion off-poul nium surface

(n) Surface treatment rinse.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium surface	nds) of tita-
Cyanide	0.847 1.23 4.27 389 174	0.351 0.584 1.78 171 77.1

(o) Wet air pollution control scrubber blowdown.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium surface treated or forged	
Cyanide	0.062 0.090 0.313 28.5 12.8	0.026 0.043 0.131 12.6 5.65

(p) Alkaline cleaning spent baths.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium alkaline cleaned	
Cyanide	0.070 0.101 0.351 32.0 14.3	0.029 0.048 0.147 14.1 6.34

(q) Alkaline cleaning rinse.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (poulion off-poul nium alkaline	nds) of tita-
Cyanide	0.080 0.116 0.403 36.8 16.4	0.033 0.055 0.169 16.2 7.29

(r) Molten salt rinse.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium treated with molten salt	
Cyanide	0.277	0.115
Lead	0.401	0.191
Zinc	1.40	0.583
Ammonia	128	56.0
Fluoride	56.8	25.2

(s) Tumbling wastewater.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium tumbled	nds) of tita-
Cyanide Lead Zinc	0.023 0.033 0.116 10.6	0.010 0.016 0.048 4.63
Fluoride	4.70	2.09

- (t) Sawing or grinding spent neat oils—Subpart F—PSNS. There shall be no discharge of process wastewater pollutants
 - (u) Sawing or grinding spent emulsions.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		nds) of tita- d or ground
Cyanide	0.053 0.077 0.267 24.4 10.9	0.022 0.037 0.112 10.7 4.83

(v) Sawing or grinding contact cooling water.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium sawed or ground with contact cooling water	
Cyanide	0.138	0.057
Lead	0.200	0.095
Zinc	0.695	0.291
Ammonia	63.5	27.9
Fluoride	28.3	12.6

(w) Dye penetrant testing wastewater.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of tita- nium treated using dye penetrant methods	
Cyanide	0.325	0.135
Lead	0.471	0.224
Zinc	1.64	0.683
Ammonia	149	65.7
Fluoride	66.7	29.6

(x) Miscellaneous wastewater sources.

SUBPART F-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium formed	inds per mil- nds) of tita-
Cyanide	0.010 0.014 0.048 4.32 1.93	0.004 0.007 0.020 1.90 0.856

(y) Degreasing spent solvents—Subpart F—PSNS. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2887, Jan. 22, 1986]

§471.66 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart G—Uranium Forming Subcategory

§471.70 Applicability; description of the uranium forming subcategory.

This subpart applies to discharges of pollutants to waters of the United States, and introductions of pollutants into publicly owned treatment works from the process operations of the uranium forming subcategory.

§ 471.71 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations for the process operations representing the degree of effluent reduction attainable by the application of the best praticable control technology currently available (BPT):

- (a) Extrusion spent lubricants—Subpart G—BPT. There shall be no discharge process wastewater pollutants.
- (b) Extrusion tool contact cooling water

SUBPART G-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium extrude	nds) of ura-
Cadium	0.117	0.052
Chromium	0.152	0.062
Copper	0.654	0.344
Lead	0.145	0.069
Nickel	0.661	0.437
Fluoride	20.5	9.08
Molybdenum	2.28	1.18
Oil and grease	6.88	4.13
TSS	14.1	6.71
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(c) Heat treatment contact cooling water.

SUBPART G-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of ex- rged uranium
Cadium Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease TSS pH	0.646 0.836 3.61 0.798 3.65 113 12.6 38 77.9	0.285 0.342 1.90 0.380 2.42 50.2 6.5 22.8 37.1 (1)

¹ Within the range of 7.5 to 10.0 at all times.

(d) Forging spent lubricants—Subpart G—BPT. There shall be no discharge of process wastewater pollutants.

(e) Surface treatment spent baths.

SUBPART G-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium surface	nds) of ura-
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease TSS	0.010 0.012 0.052 0.012 0.052 1.62 0.180 0.544 1.12	0.004 0.005 0.027 0.006 0.035 0.718 0.093 0.327 0.531
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(f) Surface treatment rinse.

SUBPART G-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	mg/off-kg (pou lion off-pou nium surface	nds) of ura-
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease TSS pH	0.115 0.149 0.641 0.142 0.647 20.1 2.23 6.74 13.8	0.050 0.061 0.337 0.068 0.428 8.90 1.16 4.05 6.57

¹ Within the range of 7.5 to 10.0 at all times.

(g) Wet air pollution control scrubber blowdown.

SUBPART G-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium surface	nds) of ura-
Cadmium	0.00	0.0006
Chromium	0.002	0.0007
Copper	0.007	0.004
Lead	0.002	0.0007
Nickel	0.007	0.005
Fluoride	0.208	0.092
Molybdenum	0.023	0.012
Oil and grease	0.070	0.042
TSS	0.143	0.068
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(h) Sawing or grinding spent emulsions.

SUBPART G-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		nds) of ura- d or ground
Cadmium	0.002	0.0009
Chromium	0.003	0.001
Copper	0.011	0.006
Lead	0.003	0.001
Nickel	0.011	0.007
Fluoride	0.338	0.150
Molybdenum	0.038	0.020
Oil and grease	0.114	0.068
TSS	0.233	0.111
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(i) Sawing or grinding contact cooling water.

SUBPART G-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		nds) of ura- d or ground
Cadmium	0.561	0.248
Chromium	0.726	0.297
Copper	3.14	1.65
Lead	0.693	0.330
Nickel	3.17	2.1
Fluoride	98.2	43.6
Molybdenum	10.9	5.65
Oil and grease	33.0	19.8
TSS	67.7	32.2
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(j) Sawing or grinding rinse.

SUBPART G-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poun or ground ura	ds) of sawed
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease TSS pH	0.002 0.002 0.009 0.009 0.277 0.031 0.093 0.191	0.0007 0.0009 0.005 0.001 0.006 0.123 0.016 0.056 0.091

¹ Within the range of 7.5 to 10.0 at all times.

(k) Area cleaning rinse.

SUBPART G-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium formed	inds per mil- nds) of ura-
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease	0.015 0.019 0.082 0.018 0.083 2.56 0.284 0.858	0.007 0.008 0.043 0.009 0.055 1.14 0.147 0.515
TSS	1.76	0.837
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

SUBPART G-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium formed	nds) of ura-
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease TSS	0.015 0.020 0.084 0.019 0.085 2.64 0.293 0.886 1.82	0.007 0.008 0.045 0.009 0.057 1.17 0.152 0.532 0.864
	1	

¹ Within the range of 7.5 to 10.0 at all times.

(m) Laundry washwater.

SUBPART G-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/emplo	yee—day
Cadmium	17.8	7.86
Chromium	23.1	9.43
Copper	99.6	52.4
Lead	22.0	10.5
Nickel	101	66.6
Fluoride	3.120	1.390
Molybdenum	347	179
Oil and grease	1.050	629
TSS	2.150	1,020
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(n) *Degreasing spent solvents—Subpart G—BPT*. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§ 471.72 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

- (a) Extrusion spent lubricants—Subpart G—BAT. There shall be no discharge of process wastewater pollutants.
- (b) Extrusion tool contact cooling water.

⁽l) Drum washwater.

SUBPART G-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium extrude	nds) of ura-
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum	0.007 0.013 0.044 0.010 0.019 2.05 0.173	0.003 0.005 0.021 0.005 0.013 0.908 0.077

(c) Heat treatment contact cooling water.

SUBPART G-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of ex- rged uranium
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum	0.006 0.012 0.040 0.009 0.017 1.86 0.158	0.003 0.005 0.019 0.004 0.012 0.827 0.070

- (d) Forging spent lubricants—Subpart G—BAT. There shall be no discharge of process wastewater pollutants.
 - (e) Surface treatment spent baths.

SUBPART G-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium surface	nds) of ura-
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum	0.006 0.010 0.035 0.008 0.015 1.62 0.137	0.002 0.004 0.017 0.004 0.010 0.718

(f) Surface treatment rinse.

SUBPART G-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium surface	nds) of ura-
Cadmium	0.068	0.027
Chromium	0.000	0.027
Copper	0.432	0.260
Lead	0.095	0.044
Nickel	0.186	0.125
Fluoride	20.1	8.90
Molybdenum	1.70	0.752

(g) Wet air pollution control scrubber blowdown.

SUBPART G-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mi lion off-pounds) of ura nium surface treated	
Cadmium	0.0007	0.0003
Chromium	0.0007	0.0005
Copper	0.005	0.0003
Lead	0.003	0.002
	1	
Nickel	0.002	0.001
Fluoride	0.208	0.092
Molybdenum	0.018	0.008

(h) Sawing or grinding spent emulsions.

SUBPART G-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		nds per million of uranium ground with
Cadmium	0.001 0.002	0.0005 0.0009
Copper Lead Nickel	0.007 0.002 0.003	0.004 0.001 0.002
Fluoride Molybdenum	0.338 0.029	0.150 0.013

(i) Sawing or grinding contact cooling water.

SUBPART G-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of ura- nium sawed or ground with contact cooling water	
Cadmium	0.033	0.013
Chromium	0.061	0.025
Copper	0.211	0.101
Lead	0.046	0.022
Nickel	0.091	0.061
Fluoride	9.82	4.36
Molybdenum	0.830	0.368

(j) Sawing or grinding rinse.

SUBPART G-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of sawed or ground uranium rinse	
Cadmium	0.001	0.0004
Chromium	0.002	0.0007
Copper	0.006	0.003
Lead	0.002	0.0006
Nickel	0.003	0.002
Fluoride	0.277	0.123
Molybdenum	0.024	0.011

(k) Area cleaning rinse.

SUBPART G-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	mg/off-kg (pou lion off-pou nium formed	inds per mil- nds) of ura-
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum	0.009 0.016 0.055 0.012 0.024 2.56 0.216	0.004 0.007 0.026 0.006 0.016 1.14 0.096

(l) Drum, washwater.

SUBPART G-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium formed	inds per mil- nds) of ura-
Cadmium	0.009	0.004
Chromium	0.003	0.004
Copper	0.057	0.007
Lead	0.013	0.006
Nickel	0.025	0.017
Fluoride	2.64	1.17
Molybdenum	0.223	0.099

(m) Laundry washwater.

SUBPART G-BAT

Maximum for any 1 day	Maximum for monthly aver- age
mg/employ	/ee—day
5.24 9.70 33.6 7.34 14.4 1.560	2.10 3.93 16.0 3.41 9.70 692 58.4
	mg/employ 5.24 9.70 33.6 7.34 14.4

(n) Degreasing spent solvents—Subpart G—BAT. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§ 471.73 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS). The mass of pollutants in the uranium forming process wastewater shall not exceed the following values:

- (a) Extrusion spent lubricants—Subpart G—NSPS. There shall be no discharge of process wastewater pollutants.
- (b) Extrusion tool contact cooling water.

SUBPART G-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium extrude	nds) of ura-
Cadmium	0.007	0.003
Chromium	0.013	0.005
Copper	0.044	0.021
Lead	0.010	0.005
Nickel	0.019	0.013
Fluoride	2.05	0.908
Molybdenum	0.173	0.077
Oil and grease	0.344	0.344
TSS	0.516	0.413
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(c) Heat treatment contact cooling water.

SUBPART G-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		unds per mil- nds) of ex- orged uranium
Cadmium	0.006	0.003
Chromium	0.000	0.005
Copper	0.040	0.003
Lead	0.009	0.004
Nickel	0.017	0.012
Fluoride	1.86	0.827
Molybdenum	0.158	0.070
Oil and grease	0.313	0.313
TSS	0.470	0.376
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(d) Forging spent lubricants—Subpart G—NSPS. There shall be no discharge of process wastewater pollutants.

(e) Surface treatment spent baths.

SUBPART G-NSPS

Chromium 0.010 Copper 0.035 Lead 0.008 Nickel 0.015 Fluoride 1.62 Molybdenum 0.137	Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
Chromium 0.010 Copper 0.035 Lead 0.008 Nickel 0.015 Fluoride 1.62 Molybdenum 0.137		lion off-pour	nds) of ura-
	Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease	0.010 0.035 0.008 0.015 1.62 0.137 0.272	0.002 0.004 0.017 0.004 0.010 0.718 0.061 0.272 0.327

¹ Within the range of 7.5 to 10.0 at all times.

(f) Surface treatment rinse.

SUBPART G-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	mg/off-kg (pou lion off-pou nium surface	nds) of ura-
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease TSS pH	0.068 0.125 0.432 0.095 0.186 20.1 1.70 3.37 5.06	0.027 0.051 0.206 0.044 0.125 8.90 0.752 3.37 4.05

¹ Within the range of 7.5 to 10.0 at all times.

(g) Wet air pollution control scrubber blowdown.

SUBPART G-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium surface	nds) of ura-
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease TSS	0.0007 0.001 0.005 0.001 0.002 0.208 0.018 0.035 0.053	0.0003 0.0005 0.002 0.0005 0.001 0.092 0.008 0.035 0.042
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(h) Sawing or grinding spent emulsions.

SUBPART G-NSPS

	any 1 day	monthly aver- age
		nds) of ura- d or ground
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease TSS pH	0.001 0.002 0.007 0.002 0.003 0.338 0.029 0.057 0.085	0.0005 0.0009 0.004 0.0008 0.002 0.150 0.013 0.057 0.068

¹ Within the range of 7.5 to 10.0 at all times.

(i) Sawing or grinding contact cooling water.

SUBPART G-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	nium sawed	inds per mil- nds) of ura- d or ground cooling water
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease TSS pH	0.033 0.061 0.211 0.046 0.091 9.82 0.830 1.65 2.48	0.013 0.025 0.101 0.022 0.061 4.36 0.368 1.65 1.98

¹ Within the range of 7.5 to 10.0 at all times.

(j) Sawing or grinding rinse.

SUBPART G-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poun or ground ura	ds) of sawed
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease TSS	0.001 0.002 0.006 0.002 0.003 0.277 0.024 0.047	0.0004 0.0007 0.003 0.0006 0.002 0.123 0.011 0.047 0.056
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(k) Area cleaning rinse.

SUBPART G-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium formed	inds per mil- nds) of ura-
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease TSS pH	0.009 0.016 0.055 0.012 0.024 2.56 0.216 0.429 0.644 (1)	0.004 0.007 0.026 0.006 0.016 1.14 0.096 0.429 0.515

¹ Within the range of 7.5 to 10.0 at all times.

(l) Drum washwater.

SUBPART G-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	mg/off-kg (pou lion off-pou nium formed	inds per mil- nds) of ura-
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum Oil and grease TSS	0.009 0.017 0.057 0.013 0.025 2.64 0.223 0.443 0.665	0.004 0.007 0.027 0.006 0.017 1.17 0.099 0.443 0.532

¹Within the range of 7.5 to 10.0 at all times.

(m) Laundry washwater.

SUBPART G-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/emplo	yee—day
Cadmium	5.24	2.10
Chromium	9.70	3.93
Copper	33.6	16.0
Lead	7.34	3.41
Nickel	14.4	9.70
Fluoride	1,560	692
Molybdenum	132	58.4
Oil and grease	262	262
TSS	393	315
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(n) Degreasing spent solvents—Subpart G—NSPS. There shall be no discharge of process waster pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§471.74 Pretreatment standards for existing sources (PSES). [Reserved]

§471.75 Pretreatment standards for new sources (PSNS).

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources (PSNS). The mass of wastewater pollutants in uranium forming process wastewater introduced into a POTW shall not exceed the following values:

- (a) Extrusion spent lubricants—Subpart G—PSNS. There shall be no discharge of process wastewater pollutants.
- (b) Extrusion tool contact cooling water.

SUBPART G-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium extrude	nds) of ura-
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum	0.007 0.013 0.044 0.010 0.019 2.05 0.173	0.003 0.005 0.021 0.005 0.013 0.908 0.077

(c) Heat treatment contact cooling water.

SUBPART G-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of ex- rged uranium
Cadmium	0.006	0.003
Chromium	0.012	0.005
Copper	0.040	0.019
Lead	0.009	0.004
Nickel	0.017	0.012
Fluoride	1.86	0.827
Molybdenum	0.158	0.070

- (d) Forging spent lubricants—Subpart G—PSNS. There shall be no discharge of process wastewater pollutants.
 - (e) Surface treatment spent baths.

SUBPART G-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium surface	nds) of ura-
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum	0.006 0.010 0.035 0.008 0.015 1.62 0.137	0.002 0.004 0.017 0.004 0.010 0.718

(f) Surface treatment rinse.

SUBPART G-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of ura- nium surface treated	
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum	0.068 0.125 0.432 0.095 0.186 20.1	0.027 0.051 0.206 0.044 0.125 8.90 0.752

(g) Wet air pollution control scrubber blowdown.

SUBPART G-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of ura nium surface treated	
Cadmium Chromium Copper Lead Nickel	0.0007 0.001 0.005 0.001 0.002	0.0003 0.0005 0.002 0.0005 0.001
Fluoride Molybdenum	0.208 0.018	0.092 0.008

(h) Sawing or grinding spent emulsions.

SUBPART G-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of ura- nium sawed or ground with emulsions	
Cadmium	0.001	0.0005
Chromium	0.002	0.0009
Copper	0.007	0.004
Lead	0.002	0.0008
Nickel	0.003	0.002
Fluoride	0.338	0.150
Molybdenum	0.029	0.013

(i) Sawing or grinding contact cooling water.

SUBPART G-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of ura- nium sawed or ground with contact cooling water	
Cadmium	0.033	0.013
Chromium	0.061	0.025
Copper	0.211	0.101
Lead	0.046	0.022
Nickel	0.091	0.061
Fluoride	9.82	4.36
Molybdenum	0.830	0.368

(j) Sawing or grinding rinse.

SUBPART G-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poun or ground ura	ds) of sawed
Cadmium Chromium Copper Lead Nickel Fluoride Molybdenum	0.001 0.002 0.006 0.002 0.003 0.277 0.024	0.0004 0.0007 0.003 0.0006 0.002 0.123 0.011

(k) Area cleaning rinse.

SUBPART G-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou nium formed	inds per mil- nds) of ura-
Cadmium	0.009	0.004
Chromium	0.016	0.004
Copper	0.055	0.007
Lead	0.012	0.006
Nickel	0.024	0.016
Fluoride	2.56	1.14
Molybdenum	0.216	0.096

(l) Drum washwater.

SUBPART G-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of ura nium formed	
Cadmium	0.009	0.004
Chromium	0.017	0.007
Copper	0.057	0.027
Lead	0.013	0.006
Nickel	0.025	0.017
Fluoride	2.64	1.17
Molybdenum	0.223	0.099

(m) Laundry washwater.

SUBPART G-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/employee—day	
Cadmium	5.24	2.10
Chromium	9.70	3.93
Copper	33.6	16.0
Lead	7.34	3.41
Nickel	14.4	9.70
Fluoride	1,560	692
Molybdenum	132	58.4

(n) Degreasing spent solvents—Subpart G—PSNS. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§ 471.76 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart H—Zinc Forming Subcategory

§471.80 Applicability; description of the zinc forming subcategory.

This subpart applies to discharges of pollutants to waters of the United States, and introductions of pollutants into publicly owned treatment works from the process operations of the zinc forming subcategory.

§471.81 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations for the process operations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

- (a) *Rolling spent neat oils—Subpart H—BPT.* There shall be no discharge of process wastewater pollutants.
 - (b) Rolling spent emulsions.

SUBPART H-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zind rolled with emulsions	
Chromium	0.0006	0.0003
	0.003	0.002
Copper		
Cyanide	0.0004	0.0002
Zinc	0.002	0.0009
Oil and grease	0.028	0.017
TSS	0.057	0.027
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(c) Rolling contact cooling water.

SUBPART H-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of zinc ontact cooling
Chromium	0.236	0.0097
Copper	1.02	0.536
Cyanide	0.156	0.065
Zinc	0.783	0.327
Oil and grease	10.7	6.43
TSS	22.0	10.5
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(d) Drawing spent emulsions.

SUBPART H-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc drawn with emulsions	
Chromium Copper Cyanide Zinc	0.003 0.011 0.002 0.009	0.001 0.006 0.0007 0.004
Oil and grease TSSpH	0.116 0.238 (¹)	0.070 0.113 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

(e) Direct chill casting contact cooling water.

SUBPART H-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of zinc e direct chill
Chromium	0.222	0.091
Copper	0.960	0.505
Cyanide	0.147	0.061
Zinc	0.738	0.308
Oil and grease	10.1	6.06
TSS	20.7	9.85
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (f) Stationary casting contact cooling water—Subpart H—BPT. There shall be no discharge of process wastewater pollutants.
- (g) Heat treatment contact cooling water.

SUBPART H—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc heat treated	
Chromium Copper Cyanide	0.336 1.45 0.221	0.138 0.763 0.092
Zinc	1.12 15.3	0.466 9.16
TSS	31.3 (¹)	14.9 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

(h) Surface treatment spent baths.

SUBPART H-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average	
	mg/off-kg (pounds per mil- lion off-pounds) of zinc surface treated		
Chromium	0.039	0.016	
Chromium	0.039	0.016	
Copper	0.169	0.089	
Cyanide	0.026	0.011	
Zinc	0.130	0.054	
Oil and grease	1.78	1.07	
TSS	3.64	1.73	
pH	(¹)	(1)	

¹ Within the range of 7.5 to 10.0 at all times.

(i) Surface treatment rinse.

SUBPART H-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc surface treated	
Chromium Copper Cyanide Zinc Oil and grease	1.58 6.80 1.04 5.23 71.6	0.645 3.58 0.430 2.19 43.0
TSS	147 (¹)	69.8 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

(j) Alkaline cleaning spent baths.

SUBPART H-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc al- kaline cleaned	
Chromium	0.002	0.0007
	0.002	0.0007
Copper	1	1
Cyanide	0.001	0.0004
Zinc	0.005	0.002
Oil and grease	0.071	0.043
TSS	0.146	0.069
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(k) Alkaline cleaning rinse.

SUBPART H-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poun- kaline cleane	ds) of zinc al-
Chromium	0.744	0.304
Copper	3.21	1.69
Cyanide	0.490	0.203
Zinc	2.47	1.03
Oil and grease	33.8	20.3
TSS	69.3	33.0
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

$(l) \ \textit{Sawing or grinding spent emulsions}.$

SUBPART H-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		unds per mil- nds) of zinc ground with
Chromium	0.011	0.005
Copper	0.045	0.024
Cyanide	0.007	0.003
Zinc	0.035	0.015
Oil and grease	0.476	0.286
TSS	0.976	0.464
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(m) Electrocoating rinse.

SUBPART H-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc electrocoated	
Chromium	1.01	0.412
Copper	4.35	2.29
Cyanide	0.664	0.275
Zinc	3.35	1.40
Oil and grease	45.8	27.5
TSS	93.9	44.7
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(n) *Degreasing spent solvents—Subpart H—BPT*. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§471.82 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

(a) Rolling spent neat oils—Subpart H—BAT. There shall be no discharge of process wastewater pollutants.

(b) Rolling spent emulsions.

SUBPART H-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc rolled with emulsions	
Chromium	0.0005	0.0002
Copper	0.002	0.0009
Cyanide	0.0003	0.0001
Zinc	0.002	0.0006

(c) Rolling contact cooling water.

SUBPART H-BAT

Maximum for any 1 day	Maximum for monthly average
mg/off-kg (pounds per million off-pounds) of zinc rolled with contact cooling water	
0.020 0.069 0.011 0.055	0.009 0.033 0.004 0.023
	mg/off-kg (pmillion off-zinc rolled cooling wate

(d) Drawing spent emulsions.

SUBPART H-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc drawn with emulsions	
Chromium	0.002 0.008	0.0009 0.004
CyanideZinc	0.001 0.006	0.0005 0.003

(e) Direct chill casting contact cooling

SUBPART H-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		pounds) of y the direct
Chromium	0.019 0.065 0.010	0.008 0.031 0.004
Zinc	0.052	0.021

- (f) Stationary casting contact cooling water—Subpart H—BAT. There shall be no discharge of process wastewater pollutants.
- (g) Heat treatment contact cooling water.

SUBPART H-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc heat treated	
Chromium	0.029	0.012
Copper	0.098	0.047
Cyanide	0.016	0.006
Zinc	0.078	0.032

(h) Surface treatment spent baths.

SUBPART H-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc surface treated	
Chromium	0.033	0.014
Copper	0.114	0.054
Cyanide	0.018	0.007
Zinc	0.091	0.038

(i) Surface treatment rinse.

SUBPART H-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc surface treated	
Chromium	0.133 0.457 0.072 0.365	0.054 0.219 0.029 0.151

(j) Alkaline cleaning spent baths.

SUBPART H-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc al- kaline cleaned	
Chromium	0.002 0.005 0.0007 0.004	0.0006 0.002 0.0003 0.002

(k) Alkaline cleaning rinse.

SUBPART H-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc al- kaline cleaned	
Chromium	0.626 2.17 0.338 1.73	0.254 1.03 0.135 0.710

(1) Sawing or grinding spent emulsions.

SUBPART H-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc sawed or ground with emulsions	
Chromium	0.009 0.031 0.005 0.025	0.004 0.015 0.002 0.010

(m) Electrocoating rinse.

SUBPART H—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc electrocoated	
Chromium	0.085	0.035
Copper Cyanide	0.293 0.046	0.140 0.019
Zinc	0.234	0.096
-		

(n) Degreasing spent solvents—Subpart H—BAT. There shall be no discharge or process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§471.83 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

- (a) Rolling spent neat oils—Subpart H— NSPS. There shall be no discharge of process wastewater pollutants.
 - (b) Rolling spent emulsions.

SUBPART H-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc rolled with emulsions	
Chromium Copper Cyanide Zinc Oil and grease TSS	0.0005 0.002 0.0003 0.002 0.014 0.021	0.0002 0.0009 0.0001 0.0006 0.014 0.017
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(c) Rolling contact cooling water.

SUBPART H-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc rolled with contact cooling water	
Chromium	0.020	0.009
Copper	0.069	0.037
Cyanide	0.011	0.004
Zinc	0.055	0.023
Oil and grease	0.536	0.536
TSS	0.804	0.643
pH	(¹)	(¹)

 $^{^{\}mbox{\scriptsize 1}}\mbox{\ensuremath{\mbox{Within}}}$ the range of 7.5 to 10.0 at all times.

$(d) \ \textit{Drawing spent emulsions}.$

SUBPART H-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc drawn with emulsions	
Chromium	0.002	0.0009
Copper	0.008	0.004
Cyanide	0.001	0.0005
Zinc	0.006	0.003
Oil and grease	0.058	0.058
TSS	0.087	0.070
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times

(e) Direct chill casting contact cooling water.

SUBPART H-NSPS

Pollutant or pollutant property	Maximum for any one day	Maximum for monthly average
		inds per mil- nds) of zinc e direct chill
Chromium	0.019	0.008
Copper	0.065	0.031
Cyanide	0.010	0.004
Zinc	0.052	0.021
Oil and grease	0.505	0.505
TSS	0.758	0.606
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (f) Stationary casting contact cooling water—Subpart H—NSPS. There shall be no discharge of process wastewater pollutants.
- (g) Heat treatment contact cooling water.

SUBPART H-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pour heat treated	inds per mil- nds) of zinc
Chromium	0.029	0.012
Copper	0.098	0.047
Cyanide	0.016	0.006
Zinc	0.078	0.032
Oil and grease	0.763	0.763
TSS	1.15	0.916
pH	(1)	(¹)

¹Within the range of 7.5 to 10.0 at all times.

(h) Surface treatment spent baths.

SUBPART H-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc surface treated	
Chromium	0.033 0.114 0.018 0.091 0.887 1.33	0.014 0.054 0.007 0.038 0.887 1.07

¹Within the range of 7.5 to 10.0 at all times.

(i) Surface treatment rinse.

SUBPART H-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average	
	mg/off-kg (pounds per mil- lion off-pounds) of zinc surface treated		
Chromium	0.133 0.459 0.072 0.365	0.054 0.219 0.029 0.151	
Oil and grease	3.58 5.37	3.58 4.30	

¹Within the range of 7.5 to 10.0 at all times.

(j) Alkaline cleaning spent baths.

SUBPART H-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poun- kaline cleane	ds) of zinc al-
Chromium Copper Cyanide Zinc Oil and grease TSS pH	0.002 0.005 0.0007 0.004 0.036 0.054	0.0006 0.002 0.0003 0.002 0.036 0.043

¹ Within the range of 7.5 to 10.0 at all times.

(k) Alkaline cleaning rinse.

SUBPART H-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-poun- kaline cleane	ds) of zinc al-
Chromium	0.626	0.259
	2 17	1.03
Copper		
Cyanide	0.338	0.135
Zinc	1.73	0.710
Oil and grease	16.9	16.9
TSS	25.4	20.3
pH	(¹)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(l) Sawing or grinding spent emulsions.

SUBPART H-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pour sawed or emulsions	nds) of zinc
Chromium	0.009	0.004
Copper	0.031	0.015
Cyanide	0.005	0.002
Zinc	0.025	0.010
Oil and grease	0.235	0.235
TSS	0.357	0.286
pH	(1)	(¹)

¹Within the range of 7.5 to 10.0 at all times.

(m) Electrocoating rinse.

SUBPART H-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (poulion off-poul	nds) of zinc
Chromium Copper Cyanide Zinc Oil and grease TSS pH	0.085 0.293 0.046 0.234 2.29 3.44	0.035 0.140 0.019 0.096 2.29 2.75

¹ Within the range of 7.5 to 10.0 at all times

(n) *Degreasing spent solvents—Subpart H—NSPS*. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§471.84 Pretreatment standards for existing sources (PSES). [Reserved]

§471.85 Pretreatment standards for new sources (PSNS).

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources (PSNS). The mass of the wastewater introduced into a POTW shall not exceed the following values:

- (a) Rolling spent neat oils—Subpart H—PSNS. There shall be no discharge of process wastewater pollutants.
 - (b) Rolling spent emulsions.

SUBPART H-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc rolled with emulsions	
Chromium	0.0005 0.002 0.0003 0.002	0.0002 0.0009 0.0001 0.0006

(c) Rolling contact cooling water.

SUBPART H-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc rolled with contact cooling water	
Chromium	0.020 0.069 0.011 0.055	0.008 0.033 0.004 0.023

(d) Drawing spent emulsions.

SUBPART H-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc drawn with emulsions	
Chromium	0.002 0.008 0.001 0.006	0.0009 0.004 0.0005 0.003

(e) Direct chill casting contact cooling water.

SUBPART H-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc cast by the direct chill method	
Chromium Copper Cyanide Zinc	0.019 0.065 0.010 0.052	0.008 0.031 0.004 0.021

(f) Stationary casting contact cooling water—Subpart H—PSNS. There shall be

no discharge of process wastewater pol-

lutants.

(g) Heat treatment contact cooling

SUBPART H-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (p million off- zinc heat tre	
Chromium	0.029 0.098 0.016 0.078	0.012 0.047 0.006 0.032

(h) Surface treatment spent baths.

SUBPART H-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (p million off- zinc surface	
Chromium Copper Cyanide Zinc	0.033 0.114 0.018 0.091	0.014 0.054 0.007 0.038

(i) Surface treatment rinse.

SUBPART H-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc surface treated	
Chromium Copper Cyanide Zinc	0.133 0.459 0.072 0.365	0.054 0.219 0.029 0.151

(j) Alkaline cleaning spent baths.

SUBPART H-PSNS

Maximum for any 1 day	Maximum for monthly average
mg/off-kg (pounds per mil- lion off-pounds) of zinc alkaline cleaned	
0.002 0.005 0.0007 0.004	0.0006 0.002 0.0003 0.002
	for any 1 day mg/off-kg (po lion off-pot alkaline cleated) 0.002 0.005 0.0007

(k) Alkaline cleaning rinse.

SUBPART H-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zinc al- kaline cleaned	
Chromium	0.626	0.254
Copper	2.17	1.03
Cyanide	0.338	0.134
Zinc	1.73	0.710

(l) Sawing or grinding spent emulsions.

SUBPART H-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zinc sawed or ground with emulsions	
Chromium	0.009	0.004
Copper	0.031	0.015
Cyanide	0.005	0.002
Zinc	0.025	0.010

(m) Electrocoating rinse.

SUBPART H-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (p million off- zinc electro	-pounds) of
Chromium	0.085 0.293 0.046 0.234	0.035 0.140 0.019 0.096

(n) Decreasing spent solvents— Subpart H—PSNS. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986]

§471.86 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart I—Zirconium-Hafnium Forming Subcategory

§ 471.90 Applicability; description of the zirconium-hafnium forming subcategory.

This subpart applies to discharges of pollutants to waters of the United States, and introductions of pollutants into publicly owned treatment works from the process operations of the zirconium-hafnium forming subcategory.

§ 471.91 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations for the process operations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

- (a) Rolling spent neat oils—Subpart I—BPT. There shall be no discharge of process wastewater pollutants.
- (b) *Drawing spent lubricants—Subpart I—BPT.* There shall be no discharge of process wastewater pollutants.
- (c) Extrusion spend emulsions—Subpart I—BPT. There shall be no discharge of process wastewater pollutants.
- (d) Extrusion press hydraulic fluid leakage.

SUBPART I-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou conium-hafni	nds) of zir-
Chromium Cyanide	0.104 0.069 0.455 31.6 14.1 4.74 9.72	0.043 0.029 0.301 13.9 6.26 2.85 4.62

¹ Within the range of 7.5 to 10.0 at all times.

- (e) Swaging spent neat oils—Subpart I—BPT. There shall be no discharge of process wastewater pollutants.
- (f) Heat treatment contact cooling water.

SUBPART I-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou conium-hafni treated	nds) of zir-
Chromium	0.151 0.100	0.062 0.041
Nickel	0.659	0.436
Ammonia	45.7	20.1
Fluoride	20.4	9.06
Oil and grease	6.86	4.12
TSS	14.1	6.69
pH	(1)	(1)

 $^{^{\}mbox{\scriptsize 1}}\mbox{\ensuremath{\mbox{Within}}}$ the range of 7.5 to 10.0 at all times.

- (g) Tube Reducing Spent Lubricant—Subpart I—BPT.
- (1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (g)(2) of this section.
- (2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.

- (3) The demonstration required under subparagraph (g)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in subparagraph (g)(2) of this section, the actions described in paragraph (g)(4), of this section shall be taken, and the demonstration required under paragraph (g)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.
- (4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in subparagraph (g)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:
- (i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (g)(2) of this section; or
- (ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (g)(3) of this section: or
- (iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (g)(2) of this section and demonstrates to the satisfaction of the NPDES issuing authority that such source has been eliminated.
- (5) The concentration limits specified in paragraph (g)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:
- (i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e.,

lower) allowable discharge concentration; and $% \left(\frac{1}{2}\right) =\frac{1}{2}\left(\frac{1}{2}\right) \left(\frac{1}{2}\right)$

(ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.

(h) Surface treatment spent baths.

SUBPART I-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of zir- um surface
Chromium	0.150 0.099	0.61 0.041
Nickel	0.653	0.432
Ammonia	45.3	20
Fluoride	20.3	8.98
Oil and grease	6.80	4.08
TSS	14	6.63
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(i) Surface treatment rinse.

SUBPART I-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		unds per mil- ounds) of fnium surface
Chromium	3.91	1.60
Cyanide	2.58	1.07
Nickel	17.1	11.3
Ammonia	1,190	521
Fluoride	529	235
Oil and grease	178	107
TSS	364	173
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(j) Alkaline cleaning spent baths.

SUBPART I-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of zir- um alkaline
Chromium	0.704	0.288
Cyanide	0.464	0.192
Nickel	3.07	2.03
Ammonia	214	93.8
Fluoride	95.2	42.3
Oil and grease	32	19.2
TSS	65.6	31.2
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(k) Alkaline cleaning rinse.

SUBPART I-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of zir- um alkaline
Chromium	13.8	5.65
Cyanide	9.11	3.77
Nickel	60.3	39.9
Ammonia	4,190	1,840
Fluoride	1,870	829
Oil and grease	628	377
TSS	1,290	613
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(1) Sawing or grinding spent emulsions.

SUBPART I—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium sawed or ground with emulsions	
Chromium	0.124	0.051
Cyanide	0.082	0.034
Nickel	0.540	0.357
Ammonia	37.5	16.5
Fluoride	16.7	7.42
Oil and grease	5.62	3.37
TSS	11.5	5.48
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(m) Wet air pollution control scrubber blowdown—Subpart I—BPT. There shall be no allowance for the discharge of process wastewater pollutants.

- (n) *Degreasing spent solvents—Subpart I—BPT.* There shall be no discharge of process wastewater pollutants.
- (o) Degreasing rinse—Subpart I—BPT. There shall be no discharge or process wastewater pollutants.
 - (p) Molten salt rinse.

SUBPART I-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthy average
		unds) of zir- um treated
Chromium	3.33	1,360
Cyanide	2.20	0.907
Nickel	14.5	9.60
Ammonia	1,010	443
Fluoride	450	200
Oil and grease	151	90.7
TSS	310	148
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(q) Sawing or grinding contact cooling water.

SUBPART I—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium sawed or ground with contact cool- ing water	
Chromium	0.142	0.058
Cyanide	0.093	0.039
Nickel	0.617	0.408
Ammonia	42.8	18.8
Fluoride	19.1	8.48
Oil and grease	6.42	3.85
TSS	13.2	6.26
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

SUBPART I-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of sawed or ground zirconium haf- nium rinsed	
Chromium	0.792	0.324
Cyanide	0.522	0.216
Nickel	3.46	2.29
Ammonia	240	106
Fluoride	107	47.5
Oil and grease	36	21.6
TSS	73.8	35.1
pH	(1)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

- (s) Sawing or grinding spent neat oils—Subpart I—BPT. There shall be no discharge of process wastewater pollutants
 - (t) Inspection and testing wastewater.

SUBPART I-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou conium-hafni	nds) of zir-
Chromium Cyanide Nickel Armonia Fluoride Oil and grease TSS	0.007 0.005 0.030 2.06 0.917 0.308 0.632	0.003 0.002 0.020 0.903 0.407 0.185 0.301
pH	(1)	(1)

¹Within the range of 7.05 to 10.0 at all times.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986, as amended at 54 FR 11350, Mar. 17, 1989]

§ 471.92 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

(a) Rolling spent neat oils—Subpart I—BAT. There shall be no discharge of process wastewater pollutants.

⁽r) Sawing on grinding rinse.

- (b) *Drawing spent lubricants—Subpart I—BAT.* There shall be no discharge of process wastewater pollutants.
- (c) Extrusion spent emulsions—Subpart I—BAT. There shall be no discharge of process wastewater pollutants.
- (d) Extrusion press hydraulic fluid leakage.

SUBPART I-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds of zir- conium-hafnium extruded	
Chromium Cyanide Nickel Ammonia Fluoride	0.104 0.069 0.455 31.6 14.1	0.043 0.029 0.301 13.9 6.26

- (e) Swaging spent neat oils.—There shall be no discharge of process wastewater pollutants.
- (f) Heat treatment contact cooling water.

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium heat treated	
Chromium	0.015 0.010 0.066 4.57 2.04	0.006 0.004 0.044 2.01 0.906

- (g) Tube Reducing Spent Lubricant—Subpart I—BAT.
- (1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (g)(2) of this section.
- (2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine,

and 0.020 mg/l of N-nitrosodi-n-propylamine.

- (3) The demonstration required under paragraph (g)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in paragraph (g)(2) of this section, the actions described in paragraph (g)(4) of this section shall be taken, and the demonstration required under paragraph (g)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.
- (4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in paragraph (g)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:
- (i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (g)(2) of this section; or
- (ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (g)(3) of this section; or
- (iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (g)(2) of this section and demonstrates to the satisfaction of the NPDES issuing authority that such source has been eliminated.
- (5) The concentration limits specified in paragraph (g)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:
- (i) Any dilution caused by the other wastewaters is taken into account in

determining the appropriate (i.e., lower) allowable discharge concentration; and

- (ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.
 - (h) Surface treatment spent baths.

SUBPART I-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium surface treated	
Chromium	0.150	0.061
Cyanide	0.099	0.041
Nickel	0.653	0.432
Ammonia	45.3	20
Fluoride	20.3	8.98

(i) Surface treatment rinse.

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium surface treated	
Chromium	0.391	0.160
Cyanide	0.258	0.107
Nickel	1.71	1.13
Ammonia	119	52.1
Fluoride	52.9	23.5

(j) Alkaline cleaning spent baths.

SUBPART I—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium alkaline cleaned	
Chromium	0.704	0.288
Cyanide	0.464	0.192
Nickel	3.07	2.03
Ammonia	214	93.8
Fluoride	95.2	42.3

(k) Alkaline cleaning rinse.

SUBPART I-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium alkaline cleaned	
Chromium	1.380	0.565
Cyanide	0.911	0.377
Nickel	6.03	3.99
Ammonia	419	184
Fluoride	187	82.9

(1) Sawing or grinding spent emulsions.

SUBPART I-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium sawed or ground with emulsions	
Chromium	0.124	0.051
Cyanide	0.082	0.034
Nickel	0.540	0.357
Ammonia	37.5	16.5
Fluoride	16.7	7.42

- (m) Wet air pollution control scrubber blowdown—Subpart I—BAT. There shall be no allowance for the discharge of process wastewater pollutants.
- (n) Degreasing spent solvents—Subpart I—BAT. There shall be no discharge of process wastewater pollutants.
- (o) *Degreasing rinse—Subpart I—BAT.* There shall be no discharge of process wastewater pollutants.
 - (p) Molten salt rinse.

SUBPART I-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium treated with molten salt	
Chromium	0.333	0.136
Cyanide	0.220	0.091
Nickel	1.45	0.960
Ammonia	101	44.3
Fluoride	45.0	20.0

(q) Sawing or grinding contact cooling water.

SUBPART I-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium sawed or ground with contact cool- ing water	
Chromium Cyanide Nickel Ammonia Fluoride	0.142 0.093 0.617 42.8 19.1	0.058 0.039 0.408 18.8 8.48

(r) Sawing or grinding rinse.

SUBPART I-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of sawed or ground zirconium-haf- nium rinsed	
Chromium	0.079	0.033
Cyanide	0.052	0.022
Nickel	0.346	0.229
Ammonia	24.0	10.6
Fluoride	10.7	4.75

- (s) Sawing or grinding spent neat oils—Subpart I—BAT. There shall be no discharge of process wastewater pollut-
 - (t) Inspection and testing wastewater.

SUBPART I-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium tested	
Chromium	0.007 0.005 0.030 2.06 0.917	0.003 0.002 0.020 0.903 0.407

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986, as amended at 54 FR 11351, Mar. 17, 1989]

§471.93 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS). The mass of pollutant in the zirconium-hafnium process wastewater shall not exceed the following values:

- (a) *Rolling spent neat oils—Subpart I—NSPS.* There shall be no discharge of process wastewater pollutants.
- (b) *Drawing spent lubricants—Subpart I—NSPS*. There shall be no discharge of process wastewater pollutants.
- (c) Extrusion spent emulsions—Subpart I—NSPS. There shall be no discharge of process wastewater pollutants.
- (d) Extrusion press hydraulic fluid leakage.

SUBPART I-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of zirconium-hafnium extruded	
Chromium Cyanide	0.104 0.069 0.455 31.6 14.1 4.74 9.72	0.043 0.029 0.301 13.9 6.26 2.85 4.62

- ¹ Within the range of 7.5 to 10.0 at all times.
- (e) Swaging spent neat oils—Subpart I—NSPS. There shall be no discharge of process wastewater pollutants.
- (f) Heat treatment contact cooling water.

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou conium-hafni treated	nds) of zir-
Chromium Cyanide	0.015 0.010 0.066 4.57 2.04 0.686 1.41	0.006 0.004 0.044 2.01 0.906 0.412 0.669

- ¹ Within the range of 7.5 to 10.0 at all times.
- (g) Tube Reducing Spent Lubricant— Subpart I—NSPS:
- (1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (g)(2) of this section.
- (2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided

the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine

- (3) The demonstration required under paragraph (g)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in paragraph (g)(2) of this section, the actions described in paragraph (g)(4) of this section shall be taken, and the demonstration required under paragraph (g)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.
- (4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in paragraph (g)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:
- (i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (g)(2) of this section; or
- (ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (g)(3) of this section; or
- (iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (g)(2) of this section and demonstrates to the satisfaction of the NPDES issuing authority that such source has been eliminated.

- (5) The concentration limits specified in paragraph (g)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:
- (i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and
- (ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.
 - (h) Surface treatment spent baths.

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium surface treated	
Chromium	0.150	0.061
Cyanide	0.099	0.041
Nickel	0.653	0.432
Ammonia	45.3	20.0
Fluoride	20.0	8.98
Oil and grease	6.80	4.08
TSS	14.0	6.63
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(i) Surface treatment rinse.

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		unds per mil- nds) of zir- ium surface
Chromium	0.391	0.160
Cyanide	0.258	0.100
Nickel	1.71	1.13
Ammonia	119	52.1
Fluoride	52.9	23.5
Oil and grease	17.8	10.7
TSS	36.4	17.3
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(j) Alkaline cleaning spent baths.

SUBPART I-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium alkaline cleaned	
Chromium	0.704	0.288
Cyanide	0.464	0.192
Nickel	3.07	2.03
Ammonia	214	93.8
Fluoride	95.2	42.3
Oil and grease	32.0	19.2
TSS	65.6	31.2
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times

(k) Alkaline cleaning rinse.

SUBPART I-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- nds) of zir- um alkaline
Chromium	1.38	0.565
Cyanide	0.911	0.303
Nickel	6.03	3.99
Ammonia	419	184
Fluoride	187	82.9
Oil and grease	62.8	37.7
TSS	129	61.3
pH	(¹)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(l) Sawing or grinding spent emulsions.

SUBPART I-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium sawed or ground with emulsions	
Chromium	0.124 0.082 0.540 37.5 16.7	0.051 0.034 0.357 16.50 7.42
Oil and grease	5.62	3.37
TSS	11.5	5.48
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(m) Wet air pollution control scrubber blowdown—Subpart I—NSPS. There shall be no allowance for the discharge of process wastewater pollutants.

- (n) Degreasing spent solvents—Subpart I—NSPS. There shall be no discharge of process wastewater pollutants.
- (o) Degreasing rinse—Subpart I—NSPS. There shall be no discharge of process wastewater pollutants
 - (p) Molten salt rinse.

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		nds) of zir- um treated
Chromium	0.333	0.136
Cyanide	0.220	0.091
Nickel	1.45	0.960
Ammonia	101	44.3
Fluoride	45.0	20.0
Oil and grease	15.1	9.07
TSS	31.0	14.8
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(q) Sawing or grinding contact cooling water.

SUBPART I—NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium sawed or ground with contact cool- ing water	
Chromium	0.142	0.058
Cyanide	0.093	0.039
Nickel	0.617	0.408
Ammonia	42.8	18.8
Fluoride	19.1	8.48
Oil and grease	6.42	3.85
TSS	13.2	6.26
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(r) Sawing or grinding rinse.

SUBPART I-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
		inds per mil- ds) of sawed zirconium-haf-
Chromium	0.079	0.033
		1
Cyanide	0.052	0.022
Nickel	0.346	0.229
Ammonia	24.0	10.6
Fluoride	10.7	4.75
Oil and Grease	3.60	2.16
TSS	7.38	3.51
pH	(¹)	(1)

¹ Within range of 7.5 to 10.0 at all times.

- (s) Sawing or grinding spent neat oils—Subpart I—NSPS. There shall be no discharge or process wastewater pollutants
 - (t) Inspection and testing wastewater.

SUBPART I-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	mg/off-kg (pou lion off-pou conium-hafni	nds) of zir-
Chromium Cyanide Nickel Ammonia Fluoride Oil and grease TSS pH	0.007 0.005 0.030 2.06 0.917 0.308 0.632	0.003 0.002 0.020 0.903 0.407 0.185 0.301

¹ Within the range of 7.5 to 10.0 at all times.

[50 FR 34270, Aug. 23, 1985; 51 FR 2888, Jan. 22, 1986, as amended at 54 FR 11351, Mar. 17, 1989]

§ 471.94 Pretreatment standards for existing sources (PSES).

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and by August 23, 1988 achieve the following preteatment standards for existing sources (PSES). The mass of wastewater pollutants in zirconium-hafnium forming process wastewater introduced into a POTW shall not exceed the following values:

(a) Rolling spent neat oils—Subpart I— PSES. There shall be no discharge of process wastewater pollutants.

- (b) *Drawing spent lubricants—Subpart I—PSES*. There shall be no discharge of process wastewater pollutants.
- (c) Extrusion spent emulsion—Subpart I—PSES. There shall be no discharge of process wastewater pollutants.
- (d) Extrusion press hydraulic fluid leakage.

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per m lion off-pounds) of z conium-hafnium extruded	
Chromium	0.104 0.069 0.455 31.6 14.1	0.043 0.029 0.301 13.9 6.26

- (e) Swaging spent neat oils—Subpart I—PSES. There shall be no discharge of process wastewater pollutants.
- (f) Heat treatment contact cooling water.

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per m lion off-pounds) of z conium-hafnium he treated	
Chromium Cyanide Nickel Ammonia Fluoride	0.015 0.010 0.066 4.57 2.04	0.006 0.004 0.044 2.01 0.906

- (g) Tube Reducing Spent Lubricant—Subpart I—PSES.
- (1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (g)(2) of this section.
- (2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursuant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine,

and 0.020 mg/l of N-nitrosodi-n-propylamine.

- (3) The demonstration required under paragraph (g)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in subparagraph (g)(2) of this section, the actions described in paragraph (g)(4) of this section shall be taken, and the demonstration required under subparagraph (g)(2) of this section shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.
- (4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in subparagraph (g) (2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:
- (i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (g)(2) of this section; or
- (ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (g)(3) of this section; or
- (iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (g)(2) of this section and demonstrates to the satisfaction of the POTW control authority that such source has been eliminated.
- (5) The concentration limits specified in paragraph (g)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling after the tube reducing wastewater has been commingled with other wastewaters is permitted if:
- (i) Any dilution caused by the other wastewaters is taken into account in

determining the appropriate (i.e., lower) allowable discharge concentration; and

- (ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.
 - (h) Surface treatment spent baths.

SUBPART I-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium surface treated	
Chromium	0.150	0.061
Cyanide	0.099	0.041
Nickel	0.653	0.432
Ammonia	45.3	20.0
Fluoride	20.0	8.98

(i) Surface treatment rinse.

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of zir conium-hafnium surface treated	
Chromium	0.391	0.160
Cyanide	0.258	0.107
Nickel	1.71	1.13
Ammonia	119	52.1
Fluoride	52.9	23.5

(j) Alkaline cleaning spent baths.

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of zir conium-hafnium alkaline cleaned	
Chromium	0.704	0.288
Cyanide	0.464	0.192
Nickel	3.07	2.03
Ammonia	214	93.8
Fluoride	95.2	42.3

(k) Alkaline cleaning rinse.

SUBPART I-PSES

Pollutant or pollutant property	Maximum for any 1 day Maximum monthly av age	
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium alkaline cleaned	
Chromium	1.38	0.565
Cyanide	0.911	0.377
Nickel	6.03	3.99
Ammonia	419	184
Fluoride	187	82.9

(l) Sawing or grinding spent emulsions.

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium sawed or ground with emulsions	
Chromium	0.124	0.051
Cyanide	0.082	0.034
Nickel	0.540	0.357
Ammonia	37.5	16.50
Fluoride	16.7	7.42

- (m) Wet air pollution control scrubber blowdown—Subpart I—PSES. There shall be no allowance for the discharge or process wastewater pollutants.
- (n) *Degreasing spent solvents—Subpart I—PSES.* There shall be no discharge of process wastewater pollutants.
- (o) *Degreasing rinse—Subpart I—PSES*. There shall be no discharge of process wastewater pollutants.
 - (p) Molten salt rinse.

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per m lion off-pounds) of z conium-hafnium treat with molten salt	
Chromium	0.333 0.220	0.136 0.091
Nickel	1.45	0.960
Ammonia	101	44.3
Fluoride	45	20

(q) Sawing or grinding contact cooling water.

SUBPART I-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil lion off-pounds) of zir conium-hafnium sawed o ground with contact cool ing water	
Chromium	0.142 0.093 0.617 42.8 19.1	0.058 0.039 0.408 18.8 8.48

(r) Sawing or grinding rinse.

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly aver- age
	mg/off-kg (pounds per mil- lion off-pounds) of sawed or ground zirconium-haf- nium rinsed	
Chromium	0.079	0.033
Cyanide	0.052	0.022
Nickel	0.346	0.229
Ammonia	24	10.6
Fluoride	10.7	4.75

- (s) Sawing or grinding spent neat oils—Subpart I—PSES. There shall be no discharge of process wastewater pollutants.
 - (t) Inspection and testing wastewater.

SUBPART I—PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium tested	
Chromium Cyanide Nickel Ammonia Fluoride	0.007 0.005 0.030 2.06 0.917	0.003 0.002 0.020 0.903 0.407

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986, as amended at 54 FR 11352, Mar. 17, 1989]

§471.95 Pretreatment standards for new sources (PSNS).

Except as provided in 40 CFR 403.7, any new source subject to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment

standards for new sources (PSNS). The mass of wastewater shall not exceed the following:

- (a) Rolling spent neat oils—Subpart I— PSNS. There shall be no discharge of process wastewater pollutants.
- (b) *Drawing spent lubricants—Subpart I—PSNS*. There shall be no discharge of process wastewater pollutants.
- (c) Extrusion spent emulsions—Subpart I—PSNS. There shall be no discharge of process wastewater pollutants.
- (d) Extrusion press hydraulic fluid leakage.

SUBPART I-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pou lion off-pou conium-hafni	nds) of zir-
Chromium Cyanide Nickel Ammonia Fluoride	0.104 0.069 0.455 31.6 14.1	0.043 0.029 0.301 13.9 6.26

- (e) Swaging spent neat oils—Subpart I—PSNS. There shall be no discharge of process wastewater pollutants.
- (f) Heat treatment contact cooling water.

SUBPART I-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off/kg (pounds per mil lion off-pounds) of zir conium-hafnium hea treated	
Chromium	0.015 0.010 0.066 4.57 2.04	0.006 0.004 0.044 2.01 0.906

- (g) Tube Reducing Spent Lubricant— Subpart I—PSNS.
- (1) There shall be no discharge of process wastewater pollutants except as provided under paragraph (g)(2) of this section.
- (2) Process wastewater pollutants may be discharged, with no allowance for any pollutants discharged, provided the facility owner or operator demonstrates, on the basis of analytical methods set forth in or approved pursu-

ant to 40 CFR part 136, that the concentrations of nitrosamine compounds in the wastewater discharged from the tube reducing process do not exceed 0.050 mg/l of N-nitrosodimethylamine, 0.020 mg/l of N-nitrosodiphenylamine, and 0.020 mg/l of N-nitrosodi-n-propylamine.

- (3) The demonstration required under subparagraph (g)(2) of this section shall be made once per month until the demonstration has been made for all three nitrosamine compounds for six consecutive months, after which time the demonstration may be made once per quarter. If a sample is found to contain any of the foregoing nitrosamine compounds at concentrations greater than those specified in subparagraph (g)(2) of this section, the actions described in paragraph (g)(4) of this section shall be taken, and the demonstration required under paragraph (g)(2) shall be made once per month until it has been made for all three nitrosamine compounds for six consecutive months.
- (4) If sampling results show that any of the foregoing nitrosamine compounds is present in the process wastewater at concentrations greater than those specified in subparagraph (g)(2) of this section, the facility owner or operator shall ensure that, within thirty days of receiving written notification of the sampling results, there is no further discharge of tube reducing spent lubricant wastewater until the owner or operator:
- (i) Performs a subsequent analysis which demonstrates that the concentrations of the foregoing nitrosamine compounds do not exceed the levels specified in paragraph (g)(2) of this section; or
- (ii) Substitutes a new tube reducing lubricant and thereafter complies with the requirements of paragraph (g)(3) of this section; or
- (iii) Determines the source of the pollutant whose concentration exceeded the level specified in paragraph (g)(2) of this section and demonstrates to the satisfaction of the POTW control authority that such source has been eliminated.
- (5) The concentration limits specified in paragraph (g)(2) of this section apply at the point of discharge from the tube reducing process. However, sampling

after the tube reducing wastewater has been commingled with other wastewaters is permitted if:

- (i) Any dilution caused by the other wastewaters is taken into account in determining the appropriate (i.e., lower) allowable discharge concentration; and
- (ii) An analytical method of sufficient sensitivity is used to measure the levels of each of the foregoing nitrosamine compounds in the wastewaters being sampled.
 - (h) Surface treatment spent baths.

SUBPART I-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off/kg (pounds per mil- lion off-pounds) of zir- conium-hafnium surface treated	
Chromium	0.150 0.099	0.061 0.041
Nickel	0.653	0.432
Ammonia	45.3	20
Fluoride	20	8.98

(i) Surface treatment rinse.

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off/kg (pounds per mil- lion off-pounds) of zir- conium-hafnium surface treated	
Chromium	0.391 0.258 1.71 119 52.9	0.160 0.107 1.13 52.1 23.5

(j) Alkaline cleaning spent baths.

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off/kg (pounds per mil- lion off-pounds) of zir- conium-hafnium alkaline cleaned	
Chromium	0.704 0.464	0.288 0.192
Nickel	3.07	2.03
Ammonia	214	93.8
Fluoride	95.2	42.3

(k) Alkaline cleaning rinse.

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mi lion off-pounds) of zin conium-hafnium alkalin cleaned	
Chromium	1.38 0.911 6.03 419 187	0.565 0.377 3.99 184 82.9

(l) Sawing or grinding spent emulsions.

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium sawed or ground with emulsions	
Chromium	0.124 0.082 0.540 37.5 16.7	0.051 0.034 0.357 16.50 7.42

- (m) Wet air pollution control scrubber blowdown—Subpart I—PSNS. There shall be no allowance for the discharge of process wastewater pollutants.
- (n) *Degreasing spent solvents—Subpart I—PSNS.* There shall be no discharge of process wastewater pollutants.
- (o) Degreasing rinse—Subpart I—PSNS. There shall be no discharge of process wastewater pollutants.

(p) Molten salt rinse.

SUBPART I-PSNS

Maximum for any 1 day	Maximum for monthly average
mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium rinsed fol- lowing molten salt treat- ment	
0.333 0.220 1.45 101 45.0	0.136 0.091 0.960 44.3 20.0
	mg/off-kg (pou lion off-pou conium-hafni lowing molte ment 0.333 0.220 1.45 101

(q) Sawing or grinding contact cooling water.

SUBPART I-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium sawed or ground with contact cool- ing water	
Chromium	0.142	0.058
Cyanide	0.093	0.039
Nickel	0.617	0.408
Ammonia	42.8	18.8
Fluoride	19.1	8.48

(r) Sawing or grinding rinse.

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of sawed or ground zirconium-haf- nium rinsed	
Chromium	0.079	0.033
Cyanide	0.052	0.022
Nickel	0.346	0.229
Ammonia	24.0	10.6
Fluoride	10.7	4.75

- (s) Sawing or grinding spent neat oils—Subpart I—PSNS. There shall be no discharge of process wastewater pollutants.
 - (t) Inspection and testing wastewater.

SUBPART I—PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of zir- conium-hafnium tested	
Chromium	0.007	0.003
Cyanide	0.005	0.002
Nickel	0.030	0.020
Ammonia	2.06	0.903
Fluoride	0.917	0.407

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986, as amended at 54 FR 11352, Mar. 17, 1989]

§471.96 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

Subpart J—Metals Powders Subcategory

§ 471.100 Applicability; description of the powder metals subcategory.

This subpart applies to discharges of pollutants to waters of the United States, and introductions of pollutants into publicly owned treatment works from the process operations of the metal powders subcategory.

§ 471.101 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations for the process operations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

(a) Metal powder production atomization wastewater.

SUBPART J-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder wet atomized	
Copper	9.58 1.46	5.04 0.605
Lead	2.12	1.01
Oil and grease	101	60.5
TSS	207	98.3
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(b) Sizing spent emulsion.

SUBPART J-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder sized	
Copper	0.028	0.015
Cyanide	0.020	0.013
Lead	0.006	0.003
Oil and grease	0.292	0.175
TSS	0.599	0.285
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (c) Oil-resin impregnation wastewater—Subpart J—BPT. There shall be no discharge of process wastewater pollutants.
- (d) Steam treatment wet air pollution control scrubber blowdown.

SUBPART J-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of power metallurgy parts steam treated	
Copper	1.51	0.792
Cyanide	0.230	0.095
Lead	0.333	0.159
Oil and grease	15.9	9.51
TSS	32.5	15.5
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(e) Tumbling, burnishing and cleaning wastewater.

SUBPART J-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder metallurgy parts tumbled, burnished, or cleaned	
Copper	8.36 1.28 1.85 88.0 181 (1)	4.40 0.528 0.880 52.800 85.8 (1)

¹ Within the range of 7.5 to 10.0 at all times.

- (f) Sawing or grinding spent neat oils.—Subpart J—BPT. There shall be no discharge of process wastewater pollutants
 - (g) Sawing or grinding spent emulsion.

SUBPART J-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder metallurgy parts sawed or ground with emulsion	
Copper	0.035	0.018
Cyanide	0.005	0.002
Lead	0.008	0.004
Oil and grease	0.362	0.217
TSS	0.742	0.353
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(h) Sawing or grinding contact cooling water.

SUBPART J-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder metallurgy parts sawed or ground with contact cool- ing	
Copper	3.08	1.62
Cyanide	0.470	0.195
Lead	0.681	0.324
Oil and grease	32.4	19.5
TSS	66.4	31.6
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(i) Hot pressing contact cooling water.

SUBPART J—BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder cooled after pressing	
Copper	16.7	8.80
Cyanide	2.55	1.06
Lead	3.70	1.76
Oil and grease	176	106
TSS	361	172
pH	(¹)	(¹)

¹ Within the range of 7.5 to 10.0 at all times.

(j) Mixing wet air pollution control scrubber blowdown.

SUBPART J-BPT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder mixed	
Copper	15.0	7.90
Cyanide	2.29	0.948
Lead	3.32	1.58
Oil and grease	158	94.8
TSS	324	154
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(k) Degreasing spent solvents.—Subpart *J—BPT*. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986]

§ 471.102 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

(a) Metal powder production atomization wastewater.

SUBPART J-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pow- der wet atomized	
Copper	9.58 1.46 2.12	5.04 0.605 1.01

(b) Sizing spent emulsions.

SUBPART J-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) or powder sized	
Copper	0.028	0.015
Cyanide	0.004	0.002
Lead	0.006	0.003

- (c) Oil-resin impregnation wastewater—Subpart J—BAT. There shall be no discharge of process wastewater pollutants
- (d) Steam treatment wet air pollution control scrubber blowdown.

SUBPART J-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pow- der metallurgy parts steam treated	
Copper Cyanide Lead	1.51 0.230 0.333	0.792 0.095 0.159

(e) Tumbling, burnishing and cleaning wastewater.

SUBPART J—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) or powder metallurgy parts tumbled, burnished, or cleaned	
Copper Cyanide	8.36 1.28	4.40 0.528
Lead	1.850	0.880

- (f) Sawing or grinding spent neat oils. Subpart J—BAT. There shall be no discharge of process wastewater pollutants.
 - (g) Sawing or grinding spent emulsions.

SUBPART J-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder met- allurgy parts sawed or ground with emulsions	
Copper Cyanide Lead	0.0035 0.005 0.008	0.018 0.002 0.004

(h) Sawing or grinding contact cooling water.

SUBPART J-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder sawed or ground with contact cooling	
Copper	3.08 0.470 0.681	1.62 0.195 0.324

(i) Hot pressing contact cooling water.

SUBPART J-BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder cooled after pressing	
Copper	16.7 2.55 3.70	8.80 1.06 1.760

(j) Mixing wet air pollution control scrubber blowdown.

SUBPART J—BAT

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder mixed	
Copper	15.0 2.29 3.32	7.90 0.948 1.58

(k) Degreasing spent solvents—Subpart J—BAT. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986]

§471.103 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS). The mass of pollutants in the metal powder process wastewater shall not exceed the following values:

(a) Metal powder production atomization wastewater.

SUBPART J-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder wet atomized	
Copper	9.58	5.04
Cyanide	1.46	0.605
Lead	2.12	1.01
Oil and grease	101	60.5
TSS	207	98.3
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(b) Sizing spent emulsions. SUBPART J—NSPS

¹ Within the range of 7.5 to 10.0 at all times.

- (c) Oil-resin impregnation wastewater.—Subpart J—NSPS. There shall be no discharge of process wastewater pollutants.
- (d) Steam treatment wet air pollution control scrubber blowdwn.

SUBPART J-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder metallurgy parts steam treated	
Copper	0.151	0.079
Cyanide	0.023	0.010
Lead	0.033	0.016
Oil and grease	1.59	0.951
TSS	3.25	1.55
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(e) Tumbling, burnishing and cleaning wastewater.

SUBPART J-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder metallurgy parts tumbled, burnished, or cleaned	
Copper	0.836	0.440
Cyanide	0.128	0.053
Lead	0.185	0.088
Oil and grease	8.80 5.28	
TSS	18.1	8.58
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

- (f) Sawing or grinding spent neat oils.—Subpart J—NSPS. There shall be no discharge of process wastewater pollutants
 - (g) Sawing or grinding spent emulsions.

SUBPART J-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder metallurgy parts sawed or ground with emulsions	
Copper	0.035	0.018
Cyanide	0.005	0.002
Lead	0.008	0.004
Oil and grease	0.362	0.217
TSS	0.742	0.353
pH	(1)	(1)

¹ Within the range of 7.5 to 10.0 at all times.

(h) Sawing or grinding contact cooling waterr.

SUBPART J-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder sawed or ground with contact cooling water	
Copper	3.08 0.470 0.681 32.4 66.4 (¹)	1.62 0.195 0.324 19.5 31.6 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

(i) Hot pressing contact cooling water.

SUBPART J-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder cooled after pressing	
Copper Cyanide Lead	1.67 0.255 0.370	0.880 0.106 0.176
Oil and grease	17.6 36.1 (¹)	10.6 17.2 (¹)

¹Within the range of 7.5 to 10.0 at all times.

(j) Mixing wet air pollution control scrubber blowdown.

SUBPART J-NSPS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder mixed	
Copper	15.0 2.29 3.32 158 324 (1)	7.90 0.948 1.58 94.8 154 (¹)

¹ Within the range of 7.5 to 10.0 at all times.

(k) Degreasing spent solvents.—Subpart J—NSPS. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986]

§471.104 Pretreatment standards for existing sources (PSES).

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject

to this subpart which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and by August 23, 1988 achieve the following pretreatment standards for existing sources (PSES). The mass of wastewater pollutants in metal powders process wastewater introduced into a POTW shall not exceed the following values:

(a) Metal powder production atomization wastewater.

SUBPART J-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pow- der wet atomized	
Copper Cyanide Lead	9.58 1.46 2.12	5.040 0.605 1.01

(b) Sizing spent emulsions.

SUBPART J-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pow- der sized	
Copper Cyanide Lead	0.028 0.004 0.006	0.015 0.002 0.003

- (c) Oil-resin impregnation wastewater.—Subpart J—PSES.
- (d) Steam treatment wet air pollution control scrubber blowdown.

SUBPART J-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pow- der metallurgy part steam treated	
Copper Cyanide Lead	1.51 0.230 0.333	0.792 0.095 0.159

(e) Tumbling, burnishing and cleaning wastewater.

SUBPART J-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per lion off-pounds) of puder metallurgy parts to bled, burnished, cleaned	
Copper	8.36	4.40
Cyanide	1.28	0.528
Lead	1.85	0.880

- (f) Sawing or grinding spent neat oils.—Subpart J—PSES. There shall be no discharge of process watewater pollutants
 - (g) Sawing or grinding spent emulsions.

SUBPART J-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	powder met	pounds per pounds) of tallurgy parts ground with
Copper	0.035 0.005 0.008	0.018 0.002 0.004

(h) Sawing or grinding contact cooling water.

SUBPART J-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder sawed or ground with contact cooling water	
Copper Cyanide Lead	3.08 0.470 0.681	1.62 0.195 0.324

(i) Hot pressing contact cooling water.

SUBPART J-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pow- der cooled after pressing	
Copper	16.7 2.55 3.70	8.80 1.06 1.76

(j) Mixing wet air pollution control scrubber blowdown.

SUBPART J-PSES

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pow- der mixed	
Copper Cyanide Lead	15.0 2.29 3.32	7.90 0.948 1.58

(k) *Degreasing spent solvents—Subpart J—PSES.* There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986]

§ 471.105 Pretreatment standards for new sources (PSNS).

Except as provided in 40 CFR 403.7, any new source subject to this subject which introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources. The mass of wastewater pollutants in metal powders process wastewater introduced into a POTW shall not exceed the following values:

(a) Metal powder production atomization wastewater.

SUBPART J-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pow- der wet atomized	
Copper Cyanide	9.58 1.46	5.04 0.605
Lead	2.12	1.01

(b) Sizing spent emulsions.

SUBPART J-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (p million off- powder size	-pounds) of
Copper	0.028 0.004 0.006	0.015 0.002 0.003

- (c) Oil-resin impregnation wastewater—Subpart J—PSNS. There shall be no discharge of process wastewater pollutants
- (d) Steam treatment wet air pollution control scrubber blowdown.

SUBPART J-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pow- der metallurgy parts steam treated	
Copper	0.151 0.023 0.033	0.079 0.010 0.016

(e) Tumbling, burnishing and cleaning wastewater.

SUBPART J-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	lion off-pou	unds per mil- inds) of pow- rgy parts tum- rnished, or
Copper	0.836	0.440
Cyanide	0.128	0.053
Lead	0.185	0.088

- (f) Sawing or grinding spent neat oils—Subpart J—PSNS. There shall be no discharge of process wastewater pollutants.
- (g) Sawing or grinding spent emulsions.

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SUBPART J-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per million off-pounds) of powder metallurgy parts sawed or ground with emulsions	
Copper Cyanide Lead	0.035 0.005 0.008	0.018 0.002 0.004

(h) Sawing or grinding contact cooling water.

SUBPART J-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pow- der sawed or ground with contact cooling water	
Copper	3.08 0.470	1.620 0.195
Lead	0.681	0.324

(i) Hot pressing contact cooling water.

SUBPART J-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of powder cooled after pressing	
Copper Cyanide Lead	1.67 0.255 0.370	0.880 0.106 0.176

(j) Mixing wet air pollution control scrubber blowdown.

SUBPART J-PSNS

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (pounds per mil- lion off-pounds) of pow- der mixed	
Copper	15.0 2.29 3.32	7.90 0.948 1.58

(k) Degreasing spent solvents—Subpart J—PSNS. There shall be no discharge of process wastewater pollutants.

[50 FR 34270, Aug. 23, 1985; 51 FR 2889, Jan. 22, 1986]

§471.106 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

SUBCHAPTER O—SEWAGE SLUDGE

PART 501—STATE SLUDGE MANagement program regula-TIONS

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AUTHORITY: 33 U.S.C. 1251 et seq.

Source: 54 FR 18786, May 2, 1989, unless otherwise noted.

Subpart A—Purpose, Scope and **General Program Requirements**

§501.1 Purpose and scope.

(a) These regulations are promulgated under the authority of sections 101(e), 405(f), 501(a), and 518(e) of the CWA, and implement the requirements of those sections.

- (b) This part specifies the procedures EPA will follow in approving, revising, and withdrawing State sludge management programs under section 405(f) that are not part of a State's NPDES program, and the requirements State programs must meet to be approved by the Administrator under section 405(f) of CWA. Sludge Management Program submissions may be developed and implemented under any existing or new State authority or authorities as long as they meet the requirements of this part. (States seeking approval of their sludge program as part of their NPDES program are to follow the requirements and procedures for program modification set forth in 40 CFR part 123.)
- (c) Any complete State Sludge Management Program submitted for approval under this part shall have the following as a minimum:
- (1) The authority to require compliance by any person who uses or disposes of sewage sludge with standards for sludge use or disposal issued under section 405(d) of the CWA, including compliance by federal facilities;
- (2) The authority to issue permits that apply, and ensure compliance with, the applicable requirements of section 405 of the Clean Water Act to any POTW or other treatment works treating domestic sewage, and procedures for issuance of such permits;
- (3) Provisions for regulating the use or disposal of sewage sludge by nonpermittees;
- (4) The authority to take actions to protect public health and the environment from any adverse effects that may occur from toxic pollutants in sewage sludge; and
- (5) The authority to abate violations of the State sludge program, including civil and criminal penalties and other ways and means of enforcement. Indian Tribes can satisfy criminal enforcement authority requirements under § 501.25.
- (d) In addition, any complete State Sludge Management Program submitted for approval under this part shall have authority to address: